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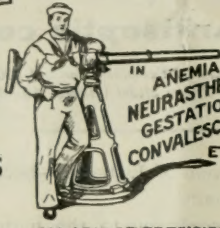
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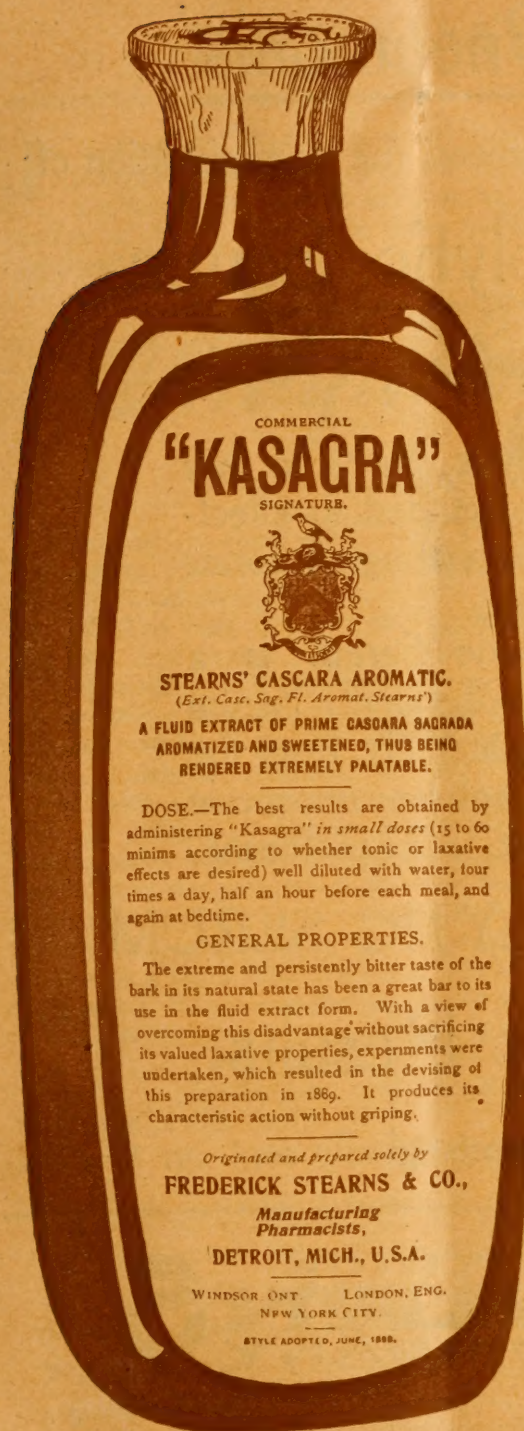
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VOL. XXI., JANUARY, 1909, No. 1.

Possibilities of Lumbar Puncture.

In the *Lancet* (Dec. 13) there is a short report of a paper read at the Sheffield Medico Chirurgical Society, by Dr. Herbert G. M. Henry. He states that lumbar puncture was first practised in England by Dr. W. Essex Wynter, in 1889. (Dr. Wynter's first case in which he attempted continuous drainage, ended fatally. It is to Quincke, of Kiel, we owe the establishment of the procedure).

For some years there was considerable hesitation on the part of the profession in making use of the method, but it is now thoroughly established not only as a therapeutic measure, but for the purposes of diagnosis, and if strict antiseptic precautions are taken it is perfectly safe.

As a diagnostic method, three points are to be noticed. Firstly an indication is given of the intrameningeal pressure. In healthy persons in the horizontal position the pressure of the cerebrospinal fluid averages 125 millimetres of water pressure, in the sitting posture this may rise to 400. (In the Toronto General Hospital a few weeks ago, in a cerebellar case the pressure rose to over 1200 m.m. in a mercurial manometer.)

Secondly, the chemical examination of the fluid gives valuable results. The presence of albumin indicates organic disease. In normal cerebrospinal fluid there is a substance possessing the power of reducing the salts of copper, as sugar does. It was at one time considered

to be a form of sugar, but it does not conform to the chemical tests for any type of sugar. Its absence is characteristic of many forms of meningitis. Lastly, the examination of the sediment, for cellular elements, blood cells, or micro-organisms, aids greatly in diagnosis. A lymphocytosis is found in tuberculous meningitis, in tabes, general paralysis and cerebrospinal syphilis. Leucocytosis of the polymorphonuclear type indicates acute meningeal inflammation.

As a therapeutic agent, benefit has been obtained through it in many forms of meningitis, and a striking instance of its value was afforded in the remarkable case recently under the care of Dr. L. M. Silver, of this city. It is probably indicated in all cases of increased intracranial pressure. Dr. Henry, in his paper, cited three cases, one of cerebral tumour, one of subacute nephritis, and one of fracture of the base of the skull in which it had led to recovery from coma which would otherwise apparently have proved fatal.

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The Milk Supply for Infants.

In the same number of the *Lancet*, there is an article by Dr. Wm. Ewart, of St. George's Hospital, on some aspects of the milk supply for infants. He points out that this concerns the welfare of the nation, as the physical deterioration of the race and depopulation by infant mortality and by tuberculosis are mainly milk questions. "There are no more sen-

sitive reagents for the quality of milk than delicate infants; they are our expert milk testers." He says it is little wonder that the mortality from infantile diarrhoea should remain to this hour undiminished in spite of the conquests of hygiene in every other direction; for it is but too likely that summer diarrhoea really spells *summer milk poison*. He lays down the following six statements as guiding principles in the milk-supply for bottle-fed infants.

1. There is only one perfect milk for the infant—the *living milk* straight from the breast. This is confirmed by the clinical value of such make-shifts as asses' milk and goat's milk drawn at the infant's residence for immediate use. Among mammalia there is on'y one instance, our own, of any storage of dead milk for the young.

2. One of the perfections of mother's milk is that it is *highly specialised* for the infants. For it there is no complete substitute, and a satisfactory approximation is often difficult to find.

3. *Singleness of supply* is another of Nature's principles. "To each infant its own cow" provided the best cow for it can be found. But in practice well-known objections are apt to arise.

4. *Sustained quality* of the single supply is the most important but the least probable attainment. The quality of mother's milk will often vary, but its fluctuations are human. Those due to bovine distempers are more serious to bear and slower for infants to get over. It may be best to seek safety in numbers, and after all to administer herd milk—on the plan of insuring the infant to constant variety—for in milk feeding, habit plays its part as in the rest of physiology.

5. Again, in its composition nursery milk should be the nearest approach to the maternal. This involves an artificial rearrangement of the constituents of dairy milk, and this is the great principle of *percentage milk*, which Professor T. Morgan Rotch, of Boston, has elaborated and applied.

6. *The sine qua non is absolute freedom from the agents of disease*, whether as in scurvy-rickets they be special to the milk, or, as in tuberculosis and all other infections, imported into it. Absolute safety from infection must be insured in infants' milk at any cost, and by some method which cannot possibly ever fail in the working. An absolutely sterile milk is the only adequate safeguard. But so long as we cannot avoid using dead milk we must be quite sure that it has not lost those qualities of living milk which are essential.

From the special point of view of infants the inherent evils or imperfections are the following: (1) the evil of promiscuousness or supply, (2) the evil of seasonal and alimentary fluctuations, and (3), the evil of health fluctuations in the cow. To these must be added: (4) the prevalent, but avoidable evil of chemical adulteration with milk preservatives. Accidental risks are also ever present—namely: (5) the risk of pollution, (6) the risk of infective contamination, and (7), the risk of fermentation.

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Treatment of Pulmonary Phthisis. At a time when surgeons are devising methods to prevent the occurrence of pneumothorax during operations involving the chest wall, it is interesting to find a physician propounding the artificial production of pneumothorax as a therapeutic agent in phthisis pulmonum. We

quote from an abstract in the *Medical Review of Reviews* of Nov. 25, from an article by Forlanini in the *Gazetta Medica Italiana*.

The two chief principles of the method advocated by the author are as follows: (1) The pneumothorax cures the destructive process of pulmonary phthisis by absolutely immobilizing the lung. (2) The solutions of continuity which are already established, including cavities, are made to disappear as the result of compression, and in this way the agglutination of their walls is obtained.

Therapeutic pneumothorax has its clearest indication in cases of unilateral phthisis, without advanced tuberculosis of the larynx, and with adhesions weak enough to be relieved by the pressure of the pneumothorax itself. A bilateral distribution of the phthisis does not prevent the treatment. After recovery the pneumothorax should be maintained for a certain time, the period varying according to the conditions present. This method of treatment is not indicated in cases having a rapid course, and of bilateral distribution from the start; these do not leave time, as it were, for the pneumothorax to act. In a similar way the method is contraindicated in case of associated disease, especially circulatory disturbances, and in patients with an extra-thoracic distribution of the tuberculous process, such as tuberculous pleurisy or intestinal adhesions.

The author reports his observations on eight patients who were treated in this manner. In one case, in which an autopsy could be obtained, the affected (left) lung was found to have been transformed into a solid cicatricial mass, without any remaining function, consisting for the better part of strands of very dense

connective tissue. The cause of death was pneumonia of the right lung.

In another case of advanced unilateral phthisis, with a rapid course and a beginning lesion on the other side, a clinical cure was obtained within about a month. This having persisted for over five years at the time of the report, it is justifiable to assume a permanent anatomical cure as well.

The remaining observations concerned patients suffering from advanced unilateral phthisis, with cavities and pleuritic adhesions, or patients having very severe bilateral phthisis. In all these cases the pneumothorax was followed within a few months by the clinical recovery of the patients.

The application of this method is very easy, and it is readily tolerated by the patients, especially in the cases of unilateral lesion, with intact pleuræ. It is warmly recommended for more general adoption.

.. ❖ ❖

Tuberculosis in Hospitals for the Insane. In the *Medical Record* of Dec. 19, 1908, Richard H. Hutchings of Ogdensburg, N. Y., says that tuberculosis is one of the prevalent causes of death in hospitals for the insane. More women than men have it. It is most frequent among those of the insane whose condition compels their keeping within the wards and with little employment. Among the men who are able to be employed on the farm out of doors, the disease is comparatively infrequent. This is also the case in asylums at high altitude, where all patients can be kept out of doors most of the time. Some of the cases of tuberculosis have the disease when they enter the asylum,

and such patients may be segregated while under observation, and then placed in a separate ward in institutions that have arrangements made for such special wards. Others take the disease while in the institution. The remedy for this state of things is the recognition that such patients should be treated in special wards and given special out-of-door treatment. All patients should be employed daily in the open air as much as possible. Patients confined to the wards should be warmly dressed and the air kept fresh by means of open windows.



Mixed Infection in Tuberculosis. It has long been observed that occurrence of secondary infections in tuberculous processes adds materially to the gravity of the prognosis. It is especially the case in empyemata, and in abscesses connected with the joints. In this connection certain investigations by M. P. Ravenel, of Madison, Wisconsin, detailed in the *Journal of the American Medical Association*, December 12, 1908, are of much interest in order to ascertain the part played by secondary infections in tuberculosis, he examined the washed sputum of a number of patients, the contents of cavities and pneumonic areas, chiefly in the vicinity of cavities. Postmortem cultures were made within twelve hours of death as a rule, and a few within four hours. The streptococcus was the organism most frequently found in cavities, and in the various organs stood second in frequency only to the colon bacillus. It was found in the spleen and bronchial glands in half of the cases in which cultures of any sort were obtained and he thinks its presence there could hardly have been due to postmortem or agonal invasion. In

areas of broncho-pneumonia the streptococcus and staphylococcus were most frequently found, and the species correspond fairly well with those found in cavities in the same patient. In a few cases repeated examinations of washed sputum were made, with the purpose of comparing the symptoms with the species of bacteria found, but without special results. Ravenel believes, however, that more extended studies of this kind ought to give some measure of success. He remarks on the lack of virulence of the streptococcus cultures from the sputum and cavities. The organism, however, is a variable one, and its lack of pathogenic power on laboratory animals does not prove that it was harmless in the body. Pneumococci, when found, were almost always highly virulent. There is little doubt, he says, that the entire evolution of the tubercle, its softening and final discharge with resulting cavity formation, can take place in the absence of secondary organisms. It appears certain, however, that one of the advantages of treatment in rural sanatoria lies in the comparative freedom of such places from the frequent epidemic colds, bronchitis, etc., of more thickly settled communities. Some evidence of the effects of secondary infection is given by the results obtained with antistreptococcus serum, and still more important proof has recently been brought forward by the use of homologous vaccine and the study of the opsonic index in relation to the secondary germs found in the sputum. While we have still much to learn, the evidence points to the conclusion that secondary infections have an unfavourable effect on the course of the disease, being the cause of or accessory factors in some of the great accidents, and generally tend-

ing to shorten life. In many cases they appear to be the direct and immediate causes of death.



Aerial Transmission of Disease. Another article in the same journal is also of interest to the student of bacteriology, for in it the writer, C. V. Chapin, Providence, R. I., questions the importance of air infection as a cause of disease. Bacteria are not readily given off from moist surfaces, and the evidence in regard to their retaining their virulence in a dry state, in the form of air-borne dust, is conflicting and difficult to analyse. Spores, of course, retain their virulence, but it is a fact that our most common spore-bearing pathogenic organism, that of anthrax, seems not to be air-borne. There is no theoretical reason why certain germs known to be resistant to drying, like those of tuberculosis, typhoid and diphtheria, may not be air-borne, but the evidence that they can be carried any distance is not conclusive. Some authorities have maintained the possibility of the air convection of small-pox, but this is contrary to facts observed in this country. The history of surgery is significant as regards this question; at first air-borne infection was carefully guarded against by the use of the spray, but later experience has taught surgeons to dispense with this safeguard. A number of facts are given in support of his position and his conclusions are summed up substantially as follows: 1. The theory of transmission of disease was developed as a reasonable way of accounting for the propagation of disease. 2. We now have other and more probable explanations. 3. The best medical thought has been steadily restricting the supposed sphere of aerial

transmission. 4. Only a few authorities now claim that disease can be carried by the atmosphere outside of dwellings, and this is asserted only of small-pox. 5. Modern bacteriology teaches that most diseases are not likely to be dust-borne, and that they are spray-borne only for two or three feet, a phenomenon that resembles contact infection more than air infection as ordinarily understood. Tuberculosis is the disease most likely to be thus air-borne. 6. Animal experimentation indicates that tuberculosis may be thus conveyed. 7. Pathology does not assume, as is sometimes alleged, that tuberculosis is an air-borne disease. 8. There is no good clinical evidence that the common diseases are transmitted through the air. 9. There is considerable clinical evidence that scarlet fever, diphtheria, small-pox, measles, whooping cough, typhoid and plague are not easily transmissible through the atmosphere. If these conclusions are correct, we should, he thinks, abandon aerial transmission as a working hypothesis and give more attention to strict medical asepsis. This he has learned by experience, we can not teach people as long as they believe air to be the chief vehicle of infection. Paris hospital experience has shown that there is little danger in neglecting the aerial factor.



Tuberculous Peritonitis. In the *Bulletin of the Johns Hopkins Hospital* Hamman reviews the statistics of one hundred and fifty cases of tuberculous peritonitis occurring in the Johns Hopkins Hospital. We condense from an abstract in the *Medical Review of Reviews*:

The most important symptoms and clinical findings during the course of the disease are as follows:

One hundred and four cases complained at some time of abdominal pain. This is the most constant and most important of all the symptoms.

Forty-two cases had vomiting and fifty-one nausea.

Forty-eight cases were constipated, thirty-three had diarrhœa and four alternating constipation and diarrhœa.

Six had blood in the stools. In one of these, tubercle bacilli were found in the fæces; two more came to autopsy and both showed tuberculous ulcers in the intestine.

Eleven cases complained of pain in the chest; four of these had pleurisy, three pulmonary tuberculosis, three both pleurisy and pulmonary tuberculosis, and one probably pulmonary tuberculosis.

Forty-seven cases had cough; in thirty-four there was clinical evidence of pulmonary disease; three more of the forty-seven came to autopsy and all showed pulmonary tuberculosis.

Thirty cases complained of dyspnoea; twenty-four of these had definite pulmonary lesions.

Less common symptoms are loss of flesh in sixty-one cases; night sweats in twenty-seven; chills in eight, headache in ten; and painful micturition in seven.

Fluid was present in the abdomen in sixty-two cases, or forty-two per cent. In the cases in which the amount of fluid is stated either at operation or autopsy, in fifty-six cases, there was a large amount in twenty-seven, moderate in fifteen, and small in fourteen—over four litres being considered a large amount, under one litre a small.

The symptom which first attracted the patient's attention to his illness is of interest. In one hundred and for-

ty-six cases the history is detailed enough to give us this information:

Sixty, or 41 per cent., first noted pain in the abdomen.

Twenty-two, or 15 per cent., came complaining of swelling of the abdomen.

Twenty-seven, or 18 per cent., first noted general constitutional symptoms.

Two cases complained of a lump in the abdomen.

Seven of the gynæcological cases entered the hospital on account of menstrual disorders.

Two cases noted first shortness of breath, nine cough, four pain in the side, three diarrhœa, one constipation, two painful micturition, three a feeling of weight in the abdomen, one vomiting.

There is no more interesting feature of tuberculous peritonitis than the tumour masses it frequently gives rise to—interesting because they are such stumbling-blocks to diagnosis. Koenig was the first to call attention to their importance and to classify them, and Dr. Osler has given them special emphasis in his article in the John Hopkins Hospital Reports. Spencer Wells' error was the beginning of the operative treatment. In our series there were palpable abdominal masses in 55 cases, or a little over one-third. The nature of this tumour could be ascertained at operation or autopsy in forty-three instances, and was:

Matted intestines	8 cases.
Rolled up omentum	9 "
Sacculated fluid	6 "
Enlarged liver	1 "
Enlarged glands	1 "
Pelvic masses discoverable in vaginal examination	18 "

The following abdominal conditions were present on examination:

Tenderness	44	cases
Rigidity	24	"
Enlarged liver	16	"
Enlarged spleen	3	"
Intestinal peristalsis ..	9	"

and of these four had intestinal obstruction.

The study of the series shows that primary peritoneal tuberculosis is very rare and that usually there is accompanying involvement of either pleura or pericardium, sometimes of both.

The results of the treatment of these cases were as follows:

Discharged from the hospital as well	10	cases
Discharged improved ..	71	"
Discharged unimproved	15	"
Died	48	"

Tuberculous peritonitis is then a very fatal disease; and even when there is improvement, the after results are not very brilliant. Still one can never say what the outcome will be in a given case, and some of the least promising turn out the best.

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Surgical Treatment of Cholelithiasis. In the *Practitioner* for December, Moynihan of Leeds, urges close attention to the very earliest symptoms of disease in the biliary passages, and urges operative treatment in every case in which the diagnosis can be made. He holds that at the present time we do not operate for cholelithiasis as such, but only in cases in which this condition has advanced to such a degree as to produce pathological conditions incompatible with life, or which rendered life intolerable." He states that with the meagre knowledge to be gathered from surgical text-books on this subject, a diagnosis of gall-stones may never

be made with confidence until complications have set in, for it is only these complications which are regarded as pathognomonic.

The early symptoms, or as Moynihan would call them, the inaugural symptoms of gall-stone disease are not referred by the sufferers to the region of the liver or gall-bladder, but to the stomach. "The comprehensive term 'indigestion' is used by all patients to describe their sufferings."

There is not acute pain: rather a sense of fulness, distension or oppression, or of flatulence, after taking food. The uncomfortable feelings generally come on in from half an hour to three quarters of an hour after food. Certain kinds of food appear to excite discomfort more readily than others, e.g., cheese, apples, coffee or tea, flavorings, etc. The distress is relieved by belching, especially by vomiting. Sometimes acute pain comes on, referred to the epigastrium. There may be spasm of the diaphragm, so that a deep breath is painful or is abruptly checked. This condition is very characteristic of gall-bladder diseases and often distinguishes them from gastric or abdominal conditions. There is frequently a sense of chilliness, generally when pain is severe, never so marked as a true rigor, and lasting only a few minutes. There may be headache, drowsiness or migraine, and any kind of work is burdensome. These well-known and frequently described symptoms, especially if recurrent, point to the presence of stones in the gall-bladder. Moynihan is disposed to say, without hesitation, that the gall-stones are never present in the gall-bladder without giving rise to symptoms, and he says the contrary opinion is a "venerable

fallacy." He deprecates all forms of medical treatment. The symptoms may indeed be kept in check, or even in abeyance, but the stones, though not causing active distress, are still doing harm. For after a period of latency" the patient may exhibit some serious complication which has stealthily arisen, and, with little warning, quietly developed to a lethal degree. Carcinoma of the gall-bladder may develop or perforation may take place. A striking instance of just such an incident is related in the *British Medical Journal* of December 12 last, page 1746. During the time that symptoms may be in abeyance insidious morbid changes are going on, changes which involve gall-bladder, liver and pancreas. Moynihan holds that in the early stages operation is simple and safe, very successful, and not followed by distressing after-effects; while on the other hand late interventions are more serious, more difficult, and sometimes followed by complications without hope of cure.

To treat gall-stones medically is, according to Moynihan, as futile as medical treatment of stone in the urinary bladder, or in the kidney. The symptoms of gall-stones are just as serious, their complications are a graver menace to the patient and their removal is safer than in the case of renal stone. "The timely removal of gall-stones is attended by a death-rate of less than 1 per cent." Moynihan sharply criticises the attitude of Professor Kehr, the celebrated German operator, in his report presented to the International Society of Surgery in Brussels last summer. Prof. Kehr is an advocate of medical treatment in the early stages, advising his patients to go to Carlsbad. He only advises operation when hydrops or empyema has developed, or

in recurrent cholecystitis or chronic occlusion of the common duct. His statistics show a mortality of 18.5 per cent, with 84 per cent. of cures among the survivors. This gives, roughly, two cures in three cases. Moynihan is evidently little pleased with this "record of the ablest and most experienced among the more conservative surgeons" and believes firmly in early operation giving much better results.



Conservative Treatment of Fractures of the Femur. In no field has the argument between the conservative and the advanced surgeon been more keen of late than in that of the treatment of fractures.

In the *Annals of Surgery* for November is an article by Drs. Ashhurst and Newell, of the Episcopal Hospital of Philadelphia, on the "Treatment of Fractures of the Femur." They note the emphatic manner in which some surgeons criticise the time-honoured methods of treating simple fractures of the thigh, and are disposed to criticise the claims of those who advocate operative procedure. They point out that the surgeons who advise operation, rest their case very largely on the examination of museum specimens, and of skiagraphs; and they remark very pertinently that museum specimens are selected as curios, and the chief desideratum is deformity and exuberant callus, and that skiagraphs are notorious for exaggerating any deformity which may exist. On the one hand they mention as advocates of operation Lane and Knaggs in England, Vaughan and Martin in America, and also König, of Germany, who favours operation in fracture of the neck, the trochanters and the condyles, but thinks quite satis-

factory results can be got in the shaft by conservative treatment. Bardenheuer on the other hand does not endorse operative measures in any cases. They point out that the experience of different surgeons and different hospitals vary very widely, e.g., one surgeon states that 80 per cent. of his cases of intracapsular fractures were discharged "with useful and valuable legs," while another surgeon in a different city says of the cases he examined that "over 57 per cent. were incapacitated." Ashhurst and Newell have studied a series of 171 recent fractures of the femur under treatment in the Episcopal Hospital in Philadelphia during the last three years. The total mortality was 18.1 per cent. With the exception of fractures of the neck of the femur there was only one fracture in which on discharge firm bony union had not taken place. The treatment adopted varied greatly, extension, sand bags, double inclined plane, etc. The ages of the patients varied from four months to eight-six years. Ninety-nine cases recovered. Of these it was possible to trace sixty-one, in whom to study the end-results. There was a "perfect functional result" in twenty-eight cases. No other disability than a limp in twenty-one cases. Marked impairment of function in eight cases, and four cases were "incapacitated, i.e., had to use crutches or were confined to the house."

Speaking of fractures of the femoral neck alone, there were entirely useful limbs in thirteen out of twenty-one cases traced, or nearly 62 per cent. Excluding fractures of the neck, there were 40 patients traced. Of these 36, or 90 per cent. had entirely useful limbs, though thirteen had a limp. The conclusion is that "the results of the conservative treatment of fractures of the femur exclud-

ing those of the neck, were satisfactory, and we very much doubt whether operative treatment of such cases could do more than give entirely useful limbs in 90 per cent. of cases, and leave only one of every three patients with no other functional impairment than a limp."

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**Treatment
of
Eclampsia.**

H. D. Fry, Washington, D. C. (*Journal of the American Medical Association*, December 21), pleads for prompt evacuation of the uterus in cases of puerperal convulsions. Eliminate pregnancy, he says, and we cut off the source of the toxæmia and are in a position successfully to eliminate the poison which has collected in the system, if it has not already gone too far and produced irreparable visceral lesions and damage to the nervous system. The frequency and extent of these lesions bears a close relation to the number of convulsions, hence the importance of early treatment. Since this method has been adopted at the Columbia Hospital, Washington, and in Fry's private practice, he can report fifteen cases of eclampsia and one of pre-eclamptic toxæmia with only one maternal death and this last was of a patient practically moribund before the treatment was undertaken. The methods employed to effect prompt delivery were: vaginal Cæsarean section in twelve cases; manual dilatation and forceps in two; multiple incisions, manual dilatation and forceps in one; symphysiotomy and forceps in one. Two cases are reported. The infant mortality is, of course, high by this treatment of immediate delivery, but not more so than with other methods. The mortality of full-term infants was 40 per cent. and of the premature 80 per cent. It is a fair inference to make that still

prompter treatment could have lessened the infant mortality.

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The Vomiting of Pregnancy. An editorial in the *New York Medical Journal* calls attention to an interesting article in the *Correspondenz-Blatt für schweizer Aerzte* last summer (July 15) by Dr. E. Schwarzenbach of Zurich.

The well-known fact that this vomiting occurs especially in the morning led him, like others before him, to the conclusion that prolonged fasting was the chief exciting cause of the occurrence. The pregnant woman is afraid to eat because she fears that she will vomit. Thus is formed a vicious circle. The pregnant woman does not eat because she will vomit; she vomits because she does not eat. Our author, therefore, insists upon short intermissions between meals, even during the night, and states that he has observed good results from the plan. A great deal of persuasion is often necessary to induce a pregnant woman suffering with hyperemesis to eat, but when she has once tried to eat small quantities about every two hours, even during the night, she will soon adhere to this schedule, and it will greatly benefit her and soon relieve her entirely.

This theory is not a new one. We know that the vomiting of pregnancy is a physiological act, and therefore medication is not likely to be of much help. Dr. Schwarzenbach now puts forward tentatively an explanation of this vomiting. He believes that even a light grade of hyperemesis gravidarum is a symptom of intoxication. A certain toxine of pregnancy, formed in the stomach, excites the mucous membrane of this organ, and thus induces vomiting. An empty stomach will react stronger, as the

toxine is in concentrated form, while the contents of a full stomach dilute the toxine, which then cannot act so intensely. Washing out of the stomach in the morning after a prolonged suspension of eating will therefore be of great help. The place of this lavage may be taken by the drinking of a cup of fluid upon awakening, which fluid—tea, milk, water, etc.—will be vomited, thus expelling the toxine. The author thinks that the principal element of treatment for hyperemesis gravidarum, besides rest in the recumbent posture, is frequent feeding.

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Pneumonia in Children. An interesting paper by G. H. M. Dunlop, entitled "Some Considerations Regarding Pneumonia in Children, Drawn from an Analysis of 500 Cases," appears in the *British Medical Journal* for August 15. Of his 500 cases of pneumonia in children, 147 were of the lobar variety, 85 occurring in boys, and 62 in girls. An immense majority of these cases occurred in the winter and spring months. Forty-five cases occurred in children under two years old. Distant, faint, or absent breathing, or breathing of an indeterminate or jerky character accompanied by an almost tympanitic percussion note, is very typical of an early pneumonia, especially when accompanied by harsh puerile breathing on the opposite side. The crepitant râle, so distinctive of the early stage of pneumonia in the adult, is more frequently absent than present in the child, and the physical signs may disappear with extreme rapidity. Pain is a common symptom but is apt to be referred to the abdomen rather than to the thorax. Convulsions occurring at the commencement of the disease, and replacing the chill in the adult,

are not of great moment. But convulsions occurring late in the disease almost invariably herald an early fatal issue. Convulsions rarely occur in children over two years of age. Extreme slowness and irregularity of the pulse in convalescence, indicate a profound toxæmic influence of the pneumococcus on the cardiac muscle. Empyema is the commonest complication. Of the 353 cases of bronchopneumonia, 120 were primary, and 233 secondary. The diagnosis is often difficult. The following points aid in differentiation from lobar pneumonia: (1) The more disseminated character of the lesion in the lung, (2) the remissions in the temperature, (3) the greater amount of cyanosis and dyspnoea, and (4) the more troublesome character of the cough. Auscultation is more reliable than percussion, and every inch of lung should be examined, as the pneumonic patches are often very small. Unlike lobar pneumonia, resolution usually takes place very slowly.

The following are the chief points to be considered in estimating the prognosis: 1. The primary disease;

those cases which occur after measles, whooping cough and diphtheria, were exceedingly fatal, giving a death rate of 54.4 per cent. 2. The younger the child the worse the prognosis; 64.4 per cent. of the deaths occurred in children under two years of age. 3. The greater the extent of the lungs involved the less is the chance of recovery. In seventy-three per cent. of these deaths, both lungs were affected. 4. The poorer the previous health of the child the graver the prognosis. In the great majority of deaths the children were wretchedly nourished and developed. 5. When a child suffers from severe forms of rickets the prognosis is always grave. In thirty-four per cent. of the deaths severe rickets existed. 6. Diarrhoea seriously affects the prognosis. This condition was present in twenty-four per cent. of the deaths. 7. A temperature of 105° F. adds greatly to the gravity of the case; 60 per cent. of these cases died. 8. A pulse rate of over 180, and a pulse respiration ratio of 1 to 2 or 1 to 1½, is always serious. 9. The highest mortality was in the cases which had lasted for several weeks.

EDITORIAL.

OUR attention has been drawn to a letter in one of the daily papers from an esteemed colleague in Antigonish relative to the new rule of notification of births and deaths.

Dr. Cameron calls attention to the new duties imposed upon the profession, duties which it is penal to neglect, but which are to be performed by us without remuneration. There is considerable force in the argument advanced by Dr. Cameron, that it is unfair to demand services from us

without compensation. But we fear there is no redress. It is already well known that no class of men renders more gratuitous service to the community than we do, as practitioners of medicine. But this is largely due to want of thought and selfishness on the part of our fellow-citizens, is also largely due to the advantage of our position, a position of superior knowledge. A man is run over in the street and badly injured. Every one runs to his assistance. The lawyer, the shopkeeper, the carpenter,

all would gladly help. But they do not know what to do; they send for the man who knows. And he, to his sorrow, loses his time, perhaps misses his dinner, is late for an appointment, or finds that some colleague has got the case to which he was hastening when summoned to the sufferer in the street. Well: he that increaseth knowledge increaseth sorrow! But there is a contra account surely, an ' the consciousness of having aided a fellowman must count for something and make life happier. It is much the same with these vital statistics. We are the only people qualified to give this information. We know that the information, carefully studied, will aid in the great work of Public Health, we believe in the canon *salus populi suprema lex*, and indeed, this Registration Act is largely due to the action of the medical profession, which, in all countries, recognises the value of Vital Statistics. As regards the delay in appointing district registrars, it is probably due to the fact that the Act is a recent one, and that it takes time to get the machinery going.

We think most of our readers will agree with us that the returns of deaths, containing as they do a statement of the disease and cause of death should be sent in a closed envelope and not in the semi-public form of a post card.

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WE propose to devote a few pages to a review of our position in regard to the campaign against tuberculosis, and the struggle with cancer. We select these because of their importance. The one claims the greatest number of victims, the other is the most ghastly and hopeless doom of suffering humanity.

But there is another reason for directing attention to these terrible enemies. Our warfare with both is

now being conducted on more scientific lines than ever before. Never has investigation been more enthusiastic, more thorough, more universal and let us say thankfully, more successful than it has been during the past two or three years. In the survey before us we shall draw largely from the special lectures and addresses of authorities eminent in the study of these diseases, and especially from the addresses and debates of various great societies and associations of medical men which have met during the past year.

I. TUBERCULOSIS.

The most important event of the past year from the purely medical point of view was the International Congress on Tuberculosis at Washington. It will ever rank as one of the great demonstrations of Science against disease. Delegates were present from every civilized country; pathologists, veterinarians, sanitarians, and practitioners whose special knowledge of the disease has made them famous.

We sympathise with our colleagues in the United States in their regret over the rather shabby accommodation provided for the meeting of the Congress, and the half-hearted action of the government, and still more on account of the intolerable action of political and commercial wire-pullers in practically suppressing, the reports of the sections, and preventing their endorsement by the Congress as a whole.

Doctors to the number of six thousand or more, assembled from all parts of the United States, paid their five dollar subscriptions and took the keenest interest in the debates. The Congress divided into six sections as follows: 1. Pathology and bacteriology; 2. Clinical Study and Therapeutics, Sanatoria, Hospitals and Dispensaries; 3.

Surgery and Orthopædies. 4. Tuberculosis in Children. 5. Hygienic Social, Industrial and Economic aspects of Tuberculosis. 6. State and Municipal Control of Tuberculosis. 7. Tuberculosis in Animals and its relation to man.

Here is an enormous field for study. The space at our disposal will only permit us to consider a few of the many questions raised, and to indicate the positions held by accredited leaders in the tuberculosis campaign.

Etiology.—That the bacillus discovered by Koch in 1882 is the germ and direct cause of tuberculosis is the belief now practically universal among pathologists. This was not so twenty years ago. The age-long conviction that tuberculosis was a constitutional and hereditary disease was not easily squared with the idea of infection. There is no doubt that the foetus may become infected through the placenta, but observation shows this to be a very rare event. And as the evidence for infection from without grew stronger, the belief in heredity shifted from a hereditary virus to a hereditary constitution. But, while perhaps the last word has not been said on this, it is evident that so-called predisposing causes are resolving themselves into opportunities for infection. The case is put very clearly by Dr. Latham, of St. George's Hospital, London, in a lecture on the influence of Heredity upon Tuberculosis, in the *Lancet* for November 21st, 1908.

In connection with etiology, experiment and observation have shown clearly the evil effect of absence of sunlight, undrained soil and insufficient or improper food, and the striking benefit of direct sunlight, fresh dry air, good food and cheerful surroundings in the treatment of tuberculosis.

Types of Disease.—There is a general agreement as to the presence of three types of disease: the human, bovine and avian, depending on different types of bacillus, but as to the transformation of any one of these into another, and especially as to the relations of the human and the bovine type, there is wide discrepancy of opinion.

It may indeed be said that the discussion on the nature of bovine tuberculosis and its relation to man, as also the effect on cattle of infection from man, was the most exciting incident in the proceedings of the Congress. Koch, who at the British Congress on Tuberculosis in 1901 had surprised the world by his statement that bovine tuberculosis differed so much from the human form that there was no risk of transmission, certainly changed his ground, but still maintained that the risks are very slight. On the other hand, Woodhead, of Cambridge, and Arloing of Lyons, the celebrated veterinarian, declared their conviction that the disease is essentially the same in both types, and they were supported by the great majority of the distinguished experimenters of Europe and America.

Closely allied in importance with this question of the essential unity of the human and bovine types of disease is that of the *channels of infection*. All admit that the tubercle bacillus invades the body through the respiratory passages, and evidence accumulates to prove the risk of infection through food and drink. When, a few years ago, Woodhead urged the importance of this avenue of infection, and its bearing on infant feeding and the milk supply, objection was made on the grounds of the great predominance of pulmonary tuberculosis and the comparative rarity of intestinal lesions in chil-

dren dying of tuberculous disease. But it is now amply proved that infection may occur through the intestinal tract without any visible lesion of mucous membrane. The bacillus has been traced through the mesenteric glands into the thoracic duct and thence through the pulmonary artery directly to the lung. So that even pulmonary phthisis may originate through the ingestion of infected food. It would seem, indeed, that to-day the trend of opinion is to regard infection through food and drink, especially milk, as of more importance than infection through inhalation.

To the general public no discussions have been of greater interest than those in regard to the *social and industrial aspects* of the campaign against tuberculosis, and the opinions of leading authorities on *sanitary legislation*. It was made abundantly clear that the selfish interests of certain corporations, and, too often, the mistaken views of municipalities and city councils are serious obstacles to efficient legislation. When sanitarians recommend improved ventilation in factories, and thorough inspection of meat and of dairy products, they come into collision with private interests, and when they insist on proper drainage and sewerage, a proper provision of air and sunshine in the streets and buildings of towns, the taxpayer objects to what he regards as unnecessary expense, and the compulsory notification of disease is opposed as an interference with personal liberty or a menace to business. It is interesting to note that in the United States where individualism is so pronounced, sanitary legislation is so far advanced, and, in many cases, so drastic. In New York, for example there is a very stringent antituberculosis law. The notification of even

incipient cases is compulsory. When a patient leaves his dwelling it must be disinfected before it can be reoccupied. If a tuberculous person spits in a public place he may be fined ten dollars. A physician who neglects to notify a case may be fined from five to one hundred dollars. If these laws are really carried out it shows that the public is well educated in the matter of tuberculosis. We have only to recollect the experience of Italy in its anti-tuberculous legislation of two or three centuries ago, to know that too severe a penalty defeats its object. The general opinion of the Congress favours compulsory notification, and while there can be no doubt that there was unanimity as regards the necessity for inspection of meat and of dairy products, no definite pronouncement was made by the Congress, owing to the extraordinary interference with the reports of the Sections to which we have referred above, an interference which would not have been tolerated in a European Congress, and which was probably due to agrarian interests or to those of the great transportation companies.

In discussing *diagnosis*, some stress was laid on the value of the X-rays in detecting deep infiltration. The respective merits of the more modern means of diagnosis were closely argued. There was considerable difference of opinion as to the value of opsonic diagnosis, and as regards the tedious and, except in expert hands, difficult testing of the opsonic index during treatment by tuberculin, it is shown that the temperature is a safe guide. There seems to be a good deal of hesitation among many clinicians about the optharmo-reaction of Calmette, as several instances of severe inflammation resulting from it have been reported, and Baldwin of Saranac declares it to be of little val-

ue. On the other hand the cutaneous reaction of Pirquet, which appears to be devoid of danger, is regarded by many as lacking in definiteness. A modification of the cutaneous test by Detre of Buda-Pesth, in which three different cultures are used, namely, a filtrate of bovine culture, a filtrate of a human culture, and concentrated old tuberculin, appears to give a more definite result, indicating within twenty-four hours, not only the nature of the tuberculous affection, but throwing light on the prognosis. The agglutination method, as advocated by Courmont of Lyons, (see *The Lancet* 1908, vol. II., p. 1740) appears to be very accurate, and is absolutely safe.

The impression given by a study of articles, and discussions on diagnosis is that while we must practise with undiminished care the older methods of physical diagnosis, the time is come when our duty to our patients demands the routine use of more modern methods.

The conclusion of the whole matter is in *treatment*. Have we anything new here? The answer is decidedly affirmative, and hopeful. The keynote to the therapeutics of tuberculosis to-day is Hope. A few years ago we derived comfort from the knowledge that not infrequently in autopsies performed on persons dying of various diseases, evidence was gained of tubercular infection which had been overcome by the defensive powers of the body. If then, even one patient in a hundred had overcome this dread disease, there was hope for our patient. Now the most competent observers declare that in the majority of autopsies performed on adult traces of conquered tuberculosis invasion are to be found. Osler goes so far as to say this is the case in nearly one hundred per cent. If it be true that one-seventh of the

mortality of our race is due to tuberculosis, it is also clear that in the great majority of people who survive to adult life, the defensive mechanism is sufficiently protective.

The importance of careful clinical histories, especially in children, is apparent. In no other way can we find out what were the agencies and circumstances which aided the system in its successful struggle with the bacillus tuberculosis.

The most notable of all our modern means of defence is the treatment by tuberculin. It is apparent now that this may be successfully administered by the mouth or by the rectum as well as hypodermically. This is the experience of the Brompton Hospital for Consumption, where also, the fact has been learned that careful observation of the temperature and clinical condition of the patient gives adequate control of the treatment by tuberculin, the opsonic index being in almost inverse relation to the temperature. But perhaps the most interesting discovery, and far-reaching in its results, is that made at the sanatorium of the Brompton Hospital. This is the effect of graduated labour in the treatment of pulmonary tuberculosis. We have in this the most promising method yet devised in early phthisis. The explanation of the results is to be found in Sir Almroth Wright's investigations on "auto-inoculation." These show that active or passive movements which affect a focus of infection, produce vascular changes there and "activate" the lymph-stream in this focus. The effect is practically that of a tuberculin injection.

The treatment must be very carefully watched, the kind and amount of labour varying with each case, and the temperature and general condi-

tion of the patient closely observed. When this method is systematically employed in addition to the benefits of open air sanatoria, we may expect greatly improved results in early cases. What can demonstrate better the ebb and flood in medical opinion than this departure from the method of only a few years ago by "rest and stuffing." Yet this method has had good results and may be the best for some cases.

The construction and management of *sanatoria*, and the best methods of *municipal or civic management* of the disease among the poor, were thoroughly discussed. It was very generally agreed that the Edinburgh system founded over twenty years ago, by Dr. R. W. Philip, was the best, consisting in notification (now compulsory in Edinburgh) attendance at a special dispensary, supervision in the home, a hospital and a working colony." The serious question of isolation received attention, and revealed considerable difference of opinion. This did not however depend on any conflict of opinion as to the desirability of isolation, but mainly on social and financial grounds. If it is seriously proposed to isolate every case in which disease due to the bacillus tuberculosis is demonstrable, one of the continents would have to be set apart. But it would be a most desirable thing that cases in the third stage, at least amongst those who cannot afford separate rooms at home, could be isolated. To admit a patient in the third stage to a sanatorium, and when disease has advanced so far that cure is hopeless, to send him home to die is evident folly. He returns to his poor, ill-ventilated home, with its crowded inmates, to be a focus of infection. It would be far better to expend the money in trying to isolate him at home from the beginning.

This is the view of such eminent authorities as Koch, Philips and Hermann Biggs. The public interest demands that patients in the third stage should be isolated at home if possible. If this cannot be done, there should be a hospital for the isolation of the incurable as much as for lepers. This is a severe measure, and would doubtless be opposed on various grounds, as almost every scientific provision for the public health has been opposed. The best reply to objectors would be to point to the reduced mortality from tuberculosis since sanitary reformers have attacked it. In Prussia, where notification is the rule and sanitary laws have been in force ever since Koch's discovery, the mortality from tuberculosis has diminished by nearly one-half, a saving of over 30,000 lives.

Our position then, with regard to tuberculosis at the beginning of the New Year is one of increased confidence. We have new and accurate methods both of diagnosis and of treatment, and we have reliable statistics which testify to a definite measure of success. And we should regard with increased respect and gratitude the workers in pathology who have taught us so much. For the life history of the bacillus tuberculosis is a study in pathology: the conditions favourable to its growth and dissemination, and on the other hand the conditions and agencies which antagonize it are discovered by pathology. And the most interesting questions on the subject at the present time are pathological, viz., the inter-relations of human and bovine tubercle, and the channels of infection. It is scarcely possible to exaggerate the importance of the answer to these questions, when it finally comes, not only in the treatment of individual patients, but in sanitary legislation and the duties of public officials.

A FEW CONSIDERATIONS OF LEASES OF ECTOPIC GESTATION.

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GESTATION occurring outside of its usual location, viz.: the uterus, is one which, in the interests of the patient, requires early recognition and prompt and decisive treatment. It is a malady which one is always liable to meet in conducting a large practice, and from which no woman is free during the period of sexual activity, no matter what her social position may be.

CAUSE:—Several theories have been put forward as to the cause of the arrest and development of the ovum outside of its normal habitat, and it is doubtful if the exact cause will ever be discovered. Some authorities claim that inflammation of the tube favours its occurrence by destroying the cilia of the tubal mucosa and so removing any bar to the advance of the spermatozoa up the tube. Virchow was the first to advance this theory as far back as 1850 and, at first, Martin of Berlin, agreed with him. Lawson Tait also favoured this view, claiming that the ovum required a raw surface for its development. In 1896, Schauta published the results of his investigations of 46 cases, in 36 of which he found signs of previous inflammation. Glitsch in 1900, wrote that he considered inflammation of the tubes and surrounding tissues as one of the commonest causes. Opitz is another supporter of this theory. In 1902, he reported that he had examined sections of pregnant tubes taken from that part

of the tube which ran from the gestation sac to the uterus, and in all of his 23 cases did he find signs of inflammation. Webster and others claim that atavism plays an important part in the development of extra-uterine gestation, but Opitz has shown that in no animal does the Fallopian tube itself act as the "brood-cavity" and that therefore it cannot be due to a reversal to a former type.

In 1895, Martin changed his views and claimed that where the ovum and spermatozoa met, there the ovum developed. He said that all women with salpingitis were absolutely sterile, that there could be no pregnancy whatever, and Prochownick, Pagny, Kreisch and some others agreed with him in opposing the inflammatory theory. Personally, I favour this theory as one so often gets an history of previous inflammation or sees it actually coëxisting at the time. Rumley Dawson has reported a case which also helps to disprove Martin's views. His patient had been operated on by Bland Sutton for extra-uterine gestation in one tube, at which time the appendages of the opposite side were bound down by inflammatory adhesions, yet two years later this patient was operated on again and the tube of the opposite side removed for a similar condition.

Dührssen, in one case, found a polypus in the tube between the ovum and the uterus, the polyp having blocked the tube so that the ovum

could not pass. He does not state how the spermatozoa could ascend so as to meet the descending ovum. It may be caused by interference with the calibre of the tube in other ways than the above, as by the tube kinking, spasm of the tube or pressure by some structure from without. Diverticula or sacculations of the tube may catch the ovum and hold it, as has been noted by more than one observer.

HISTORY:—We are apt to think that ectopic gestation, like appendicitis, is a disease of the present day only, but the first case was reported by Albucasis as far back as the 11th century. History remains a blank until the early part of the 15th century, when Cornax reported that he had extracted a decomposing foetus through an ulcer situated near the umbilicus. Other cases were observed in the 16th and 17th centuries, but it was not until 1883 that the abdomen was deliberately opened for the treatment of this condition, Lawson Tait having the honour of being the first surgeon to do so.

METHOD OF ATTACHMENT OF THE OVUM:—In our student days, all present were taught that the impregnated ovum descended into the uterus and rested quietly on the mucosa until the latter grew up around it. It had been known, however, for a long time that the ova of rodents and insectivora embedded themselves in the tissues, but this was not demonstrated to be also true of the human embryo until 1899, when Peters' historic monograph, describing the histology of an ovum which was only five or six days old, was published. Peters demonstrated that the ovum had been completely buried in the uterine mucosa, the wall of the blastocyst being composed at the outer part of a many

layered cell mass, irregularly excavated by extravasations of blood from the maternal vessels, the neighbouring maternal tissues apparently undergoing degeneration and absorption. In Peters' specimen, the site of the ovum was indicated by a slight papillary projection from the surface of the uterus, at the apex of which was a mass of fibrin which thus indicated the point of entrance of the ovum. In the uterus, the mucous membrane lies upon a distinct layer of loose submucous tissue which intervenes between it and the muscle, this tissue thus forming a favourable bed for the developing ovum and protecting, as it were, the essential part of the uterine wall, the muscle, from the destructive tendencies of the trophoblast. In the tube, no such submucous tissue exists, so that the intruding visitor has to send its advance guard of trophoblastic cells into the actual muscular wall of its host. Werth, Aschoff, Duncan and Andrews, have all shown that the above process actually takes place in the pregnant tube. This destructive action of the trophoblastic cells and consequent hæmorrhage into the tissue from erosion of the walls of the blood-vessels undoubtedly aid in the rupture of the wall of the gestation sac, which is the usual method of termination of this variety of pregnancy.

VARIETIES:—Ectopic gestation may be tubal, ovarian or abdominal, although the possibility of this last form is denied by most authors. Ova formerly were supposed to be able to attach themselves to and be nourished by Mullerian tissue only. This is normally present in the uterus and tubes, so for an ovum to develop in either of these situations no exceptions would have to be made,

but what about cases occurring in the ovary or peritoneal cavity, in both of which locations gestation sacs are undoubtedly found? These may be explained by either, 1st; the presence of isolated patches of Mullerian tissue in the ovary or peritoneum, or 2nd; by the trophoblastic cells having greater power than they were originally considered to possess. The possibility of ovarian pregnancy was long doubted, but quite a number of genuine cases have now been recorded. Sippel, in 1892, claimed that the size of an ovum which had gone beyond the time before entering the uterine cavity was not so important as the facts that its surface had become roughened and that it had acquired the property of exciting a specific stimulus which was capable of causing the formation of the decidua. In 1901, the same author added that "the ovum has acquired the power of boring its way through the epithelium" and quotes one of Martin's cases as proving that the impregnation of the ovum in the abdominal cavity is possible. One of my own cases points to the same conclusion. Many instances of fetal sacs growing in the abdominal cavity have been reported as cases of "abdominal pregnancy," but in the vast majority of these, part of the ovum is still within the cavity of the tube, the abdominal growth being quite secondary.

SYMPTOMS:—When the patient first consults the physician, she does not always present the typical picture of a woman who has had a period of amenorrhœa, usually of from two to three months duration, and a dull aching pain in the side, followed by a constant dribbling of blood from the vagina, ending in sudden, acute pelvic pain with fall of temper-

ature, rapid thready pulse, blanched mucous membranes and sighing respirations. We ought to be able to diagnose the condition before these alarming symptoms manifest themselves.

Pain:—In the case where the sac is still intact, the patient complains of pain in one side of the pelvis, or, more rarely, the hypogastrium. This pain is dull and aching in character with a tendency to become colicky at times. This increases in severity, until, finally, the crisis is reached, and we have the sudden acute pain and all of the signs and symptoms of extensive concealed hæmorrhage from rupture of the sac.

In some cases, the pain and collapse are not so severe and the patient is able to be up and around again in a few days, the pain relapsing into its former dull aching character, acute exacerbations and faintness recurring later. These intermittent attacks may continue for some weeks before the final severe internal hæmorrhage, calling for immediate and radical treatment, supervenes. When the patient gives the above history, you may be sure that "tubal abortion" has taken place, each attack of acute pain and faintness indicating a fresh escape of blood through the fimbriated end of the tube into the peritoneal cavity. This incomplete tubal abortion, *i.e.*, where part of the ovum remains within the tube, may lead to such severe internal hæmorrhage as to produce death of the patient if she is not operated on just as surely and certainly as if the sac had ruptured. The pain is not greatly increased on exertion, but is aggravated whenever there is a movement of the bowels.

Hæmorrhage:—The discharge of blood from the vagina is one of the

commonest, and often one of the earliest, symptoms of ectopic gestation. In my own series of 49 cases to date, the interval which elapsed between the last regular menstrual period and the appearance of bloody discharge varied. In eight cases, one a very old one, this symptom was entirely absent and was present simply as a continuation of the last menstrual period in a similar number. Where any interval had elapsed, the shortest was seven days and the longest four months. In two cases this discharge was the first blood seen after the last pregnancy in one case three and one-half months after the patient had given birth to a full term child, and in the second three months after a premature labour. There is no special time of day at which it may make its first appearance. It may begin when the patient is at rest in bed during the night, when she is at work or when she is quietly walking in the street. In one of my cases, it came on while the woman was at stool. This external hæmorrhage is very seldom severe, although the woman may lose a considerable amount. It usually occurs as a "dribbling" of blood, a very little dark hæmorrhage coming away constantly. Occasionally, the blood is accompanied by the discharge of shreds of decidua or by the expulsion of complete casts of the uterine cavity, thus simulating ordinary abortion. This discharge of large pieces of decidual tissue is not at all common, only having been observed in five of my own cases.

From whence comes this blood? It has been claimed by some that it is derived from the tube and reaches the exterior through the uterine cavity. It may occasionally result from the tearing of the tubal wall, but

when one remembers how frequently the tube is blocked between the site of the gestation and the uterus, one will hesitate before accepting the universal truth of this theory. Also, this will not explain the blood in cases of ovarian gestation. There is little doubt but that the blood comes from the wall of the uterus itself, and is caused partly by the breaking down of the decidua which is formed there and also by the stimulation of the uterine mucosa and vessels by the affection of the tube. The uterine origin is also favoured by the fact that, as has been demonstrated by Webster and others, where one tube is the seat of gestation the other one is the seat of decidual changes, the formation of which tissue around the uterine ends of the tube helps to close them and cut off their communication with the interior of the uterus.

Pulse and Temperature : — The pulse and temperature are not affected in a case of ectopic gestation previous to the expulsion of the ovum from the tube or the rupture of the latter. Immediately after either of these, however, the pulse becomes weak, rapid and thready, the beats varying from 90 to 160 or 180 per minute, the rate depending to a very large extent upon the amount of blood lost, but partly also upon the shock occasioned by the irritation of the blood in the peritoneal cavity. Where the effused blood becomes walled off, thus stopping the hæmorrhage, the condition of the pulse improves, it becoming slower, steadier and stronger until a fresh hæmorrhage occurs when the rapid and thready condition again is observed.

The temperature drops on rupture of the sac until the thermometer may register as low as 96 degrees Fahren-

heit, as was seen in one of my own cases. In a few hours, however, unless the hæmorrhage has been very severe, it rises again and may run up to between 102° and 103° due to reaction setting in and to pelvic peritonitis being caused by the irritation of the blood on the peritoneum. This elevation of temperature should be remembered as it may lead to an error in diagnosis and so cost the patient her life.

Respiration : — The respirations become quickened at first, but later are slow and of a sighing character. They are not affected to nearly the same degree as the pulse and temperature.

Tenderness is usually marked over the affected side where rupture has occurred. At the very first it is localised over the site of the rupture, but very soon becomes diffused over the whole of the lower quadrant of the pelvis only, later on, to become again confined to the diseased area.

The *functions of the alimentary system* are frequently interfered with. Many of the patients complain of either simple nausea or actual vomiting. In my own series, vomiting was a symptom in fifteen cases and nausea in two.

Constipation is a common complaint, but it may be replaced by diarrhœa, especially just after rupture. This diarrhœa is undoubtedly due to irritation of the rectum by the effused blood, and the same cause produced the rectal tenesmus so often complained of.

The bladder is often irritated and the interference with the act of micturition may be so great that catheterisation may be required.

EXAMINATION OF PATIENT.—Before rupture, nothing about the general appearance of the woman would lead

one to suspect ectopic gestation. Upon making a vaginal examination, however, an elongated mass is felt in the pelvis to one side of the uterus. This mass is firm, mobile and not, as a rule, very sensitive. If the local examination is repeated with some days' interval, it will be found to steadily increase in size.

Immediately after rupture, however, the picture is much more graphic and one which may be read with comparative ease. The mucous membranes are very pale and the skin waxy. The respirations may be observed to be of a sighing character, or else rapid and shallow. The abdomen is distended and tender, and dulness is usually discovered in one or both flanks, but as a rule much more marked in that of the affected side. If the gestation has progressed sufficiently, a mass may be felt in one side of the lower abdomen. On making a vaginal examination within the first few hours after rupture it is very likely that all that can be felt will be a slightly softened cervix with, perhaps, a patulous os, and a doughy sense of resistance in one or both fornices. The want of definition of any mass which may be present is due, of course to the amount of blood present masking the condition. A few hours later, this blood will have coagulated and been walled off, at which time you will be able to make out a distinct mass to one side of and behind the uterus, and this will be felt to present the same doughy sensation above referred to. I know of no other condition which will give the same sense of dead, nonelastic resistance which is felt in these cases, and which serves therefore as a most important diagnostic sign. At times

the blood clot surrounds the fundus on each side and posteriorly so that it is impossible to distinguish it from the general mass. When it can, however, be separated, it is felt to be firm, slightly enlarged, pushed to one side, and fixed by fresh adhesions.

An *examination of the breasts* will show the usual changes observed in an intra-uterine pregnancy of like duration.

The period of gestation at which the crisis appears will depend to a large extent upon the mode of termination. Where the tube dilates and the ovum simply is expelled, wholly or partially, into the peritoneal cavity, it will be at about the fifth or sixth week. If, however, rupture of the sac occurs, this will be postponed until between the eighth and twelfth week.

DIAGNOSIS.—Ectopic gestation, especially after tubal abortion or rupture, has to be diagnosed from various other conditions, the most frequent being:—(1) intra-uterine pregnancy with abortion, (2) pyosalpinx, (3) pelvic tumour with a twisted pedicle, (4) acute pelvic peritonitis, and (5) appendicitis.

1.—In intra-uterine pregnancy with abortion, the history is very similar to that which one gets in ectopic pregnancy. You have the period of amenorrhœa followed by a discharge of blood from the uterus. In both, the cervix is felt to be somewhat softened and you have the usual mammary changes. In the ectopic variety, however, the cervix is not so often patulous as in the normal case, nor is there the same degree of softening. In the pathological form, you feel a mass in one fornix and the fundus is not enlarged to the extent commensurate with the period of

amenorrhœa. After rupture, there is little difficulty in distinguishing between the two varieties.

2.—In pyosalpinx, the patient usually gives a history of infection, either of gonorrhœa or puerperal, the temperature is high from the first, unless it be a chronic case, and the rapidity of the pulse will be in accordance with the elevation of the temperature. The tenderness, in the acute case (and that is the variety which will give most trouble in diagnosis) will be much more marked.

3.—Where the patient has a pelvic tumour with a twisted pedicle, there will often be a history of painful menstruation and, probably, of menorrhagia. She may even tell you that there has been some enlargement of the lower abdomen for some time past. The onset will be sudden and sharp, as in the case of a ruptured ectopic, but the collapse will not be so marked, no decidual shreds will come from the cavity of the uterus, nor will that organ be either so large nor so soft as in the ectopic. The pulse will be rapid, but bounding, the pulse of peritonitis, rather than the thready pulse from hæmorrhage.

Examination of the abdomen and pelvis will also help you. If the examination is made under an anæsthetic, the tumour will be distinctly felt bi-manually, and its borders will be readily defined and not vague and indefinite as in the case of a ruptured gestation sac.

4.—Acute pelvic peritonitis will be of a sudden origin, but there will be no blood-loss nor period of amenorrhœa, unless it is complicated by the existence of a uterine pregnancy. A vaginitis is usually present and cultures from the vaginal discharge will often demonstrate the presence of gonococci.

5.—Appendicitis may be mistaken for a ruptured ectopic, but, here, vomiting and constipation are much more constant symptoms than in the latter, there is no history of amenorrhœa and but little likelihood of an hæmorrhagic discharge from the uterus. While, although somewhat rarely, there may be no disturbance of the temperature, the character of the pulse will be that of a peritonitis rather than of the following hæmorrhage.

The condition found on making a vaginal examination will also be different in the two. In the ruptured ectopic, you will feel the fornices depressed by a boggy mass, while in the case of an appendiceal attack nothing but tenderness will usually be made out.

PROGNOSIS:—The outlook for a patient who is the subject of an extra-uterine gestation is always grave, and extremely so if she is not subjected to immediate operation.

In 1902, Champneys published a series of seventy-five cases and, while advocating operation in all unruptured cases, he strongly urged the advisability of waiting, after rupture had occurred, to see if the ovum would die and the blood become absorbed. As a result, his mortality of all cases was 9.3 per cent., while 45.3 per cent. of his patients recovered without any operative interference of any kind. In weighing this evidence, it must be remembered that it is not always easy to be sure that you have a case of ectopic to deal with, and therefore some, at all events, of Champney's cases may have been some other condition. His practice is apparently endorsed by a series of experiments on dogs recently carried out by Hunter Robb. He severed the ovarian and uterine ar-

tries in several dogs and closed the abdomen without any effort to stop the hæmorrhage. The bleeding ceased and the dogs recovered without any further attempts to close the vessels, thus showing that in canines ligation of the abdominal vessels when divided is unnecessary. It must be remembered, however, that it is a well known fact that dogs stand blood-loss extremely well and we should not argue from that fact that women can do the same.

In my own series, three patients were not operated on, one patient refusing operation and dying within twelve hours from her admission into hospital, the other two being seen only after the hæmorrhage had ceased. They were kept under observation for some time and were discharged cured with the clot almost completely absorbed in each case. Of the other forty-six, all were operated on by the abdominal route, with one death, this occurring as a result of mistaken diagnosis and waiting too long before interfering.

TREATMENT:—If diagnosed before rupture, remove the diseased appendage at once as the patient is tottering on the verge of a slumbering volcano which may break into activity and destroy the life of the patient.

When the patient is not seen until after rupture has occurred, the treatment will depend upon various circumstances.

If some hours have elapsed, the hæmorrhage ceased and the patient rallying, you should postpone operation, at least until you can get her into surroundings which are favourable to work in. How is one to tell when hæmorrhage has ceased? Robb found that, as long as free bleeding was going on, as shown by the in-

crease in the pulse-rate, there was a continued fall in the hæmoglobin. but that this remained stationary as soon as the hæmorrhage ceased. In the human subject, measurement of the hæmoglobin is not necessary as the rate of the pulse remains stationary as soon as the bleeding stops, but it may be taken as confirmatory of the story told by the pulse. An argument against immediate operation put forward by some is that the shock of the operation following so soon on that of rupture, will produce a fatal result. This has not been my experience, as my patients were operated on at varying periods from the time of rupture. The one operative case which was lost entered hospital at 9.20 p. m., and was not subjected to operation until 10.15 a.m. next day.

Where, for any reason it is decided not to operate at once, what is one to do? If a man is run over on the street and the vessels of a limb are torn, one tries to control the hæmorrhage by pressure. It is just the same here, only it is more difficult to reach the bleeding point. You should, however, increase the intra-abdominal pressure by applying a very tight bandage around the abdomen. In one series of Robb's experiments this treatment was adopted with the result that the pulse would be found to fall from 162 to 120, and respirations from 56 to 40, in a comparative few minutes. Ice should be applied over the site of rupture and a hypodermic of morphine given to quiet the heart's action. The administration of cardiac stimulants is strongly contra-indicated in this condition, but the use of saline solution will be found to be most beneficial as tending to replace the blood lost. Of the three methods of its adminis-

tration, intra-venous, per rectum and beneath the mamma, the latter is the best; the patient reacts quickly and there is less danger of injecting air into the veins. The bed clothes should be light and cool and the diet non-stimulating. If the pulse is in very bad condition and the mucous membranes very much blanched, the extremities may be tightly bandaged and the foot of the bed raised.

When operation has been decided on, the abdomen should be opened, and the affected tube sought for, tied off and removed as quickly as possible. It is quite unnecessary to empty the abdomen of the clots as they quickly become absorbed, but it is well to fill the cavity with hot saline solution, as this improves the circulation and is a good preventive against the nervous chilly feeling from which most patients who have had an abdominal section performed on them suffer.

When the gestation has approached full term it is a debatable point as to whether it is best to wait until the fœtus has died or to operate at once. I have never had the good fortune to see but one such case, and that was in consultation with another operator, but if I ever do I shall favour waiting until some weeks after the death of the fœtus unless induced to operate earlier by the onset of some complication. If one operates while the child is alive, the vessels are all active and the placental attachments are strong, so that its removal leaves a large bleeding surface with no contractile tissue to help control the vessels as in the case of the muscular uterine wall, and marsupialisation and packing of the sac are apt to lead to septic trouble. If, however, the fœtus has died some weeks before interference is attempted, the vessels of

the placenta are plugged with a clot and the membranes are half separated already from the wall of the sac. It must be remembered, however, that sometimes the sac is adherent to the bowels, and that you may have septic infection through this channel: therefore this complication should be carefully watched for and promptly treated. It is suggested by some operators that where you remove one tube for ectopic gestation, you should also take away the other in case it may become similarly affected. This opinion should be strongly opposed. For one thing, secondary operation for ectopic is comparatively rare, and even if gestation does occur in the other tube, the patient may have given birth to several children in the interval and will be most likely to survive the second operation. I have only seen two cases of repeated ectopic, and one recovered without operation so that I cannot be sure that the diagnosis was correct. Many of my patients have given birth to one or more full term children after having one tube removed for this condition, so that I will never be convinced that the above proposition is in any degree justifiable, and I am glad to say that this is the view taken by almost every gynæcologist.

CASES:—The following are two or three cases which presented points of special interest and which I thought were worth reporting in full.

1.—The first case is one of unruptured and repeated ectopic pregnancy. Mrs. L., age 38 years, recommended by Dr. McNaughton, consulted me in 1907. Four weeks before I first saw her, she was seized with a sudden pain in her left side accompanied by hæmorrhage from the vagina which gave rise to the suspicion in her mind that she was

having a miscarriage, as the previous period had been very scanty, and she was about one week overdue. The pain only lasted for a few hours but recurred one week later with the same kind of flow and again being short of duration. On neither occasion was there any weakness nor faintness. When the doctor first saw her she was having pain in the left side, over which there was some tenderness and rigidity. The cervix was soft and sensitive and the os was patulous. The uterus was slightly enlarged and the presence of some membrane within the organ was suspected. Curettage was performed and but little tissue obtained, not nearly enough to account for her condition of pain, tenderness and hæmorrhage. She was kept in bed for ten days, having hot douches twice daily. There was no return of the pain and the rigidity disappeared. She was up and around at intervals for eight days, during which time there had been a slight flow each day. The pain then returned but was relieved by a sedative. Examination of the pelvic organs now revealed an elongated mass on the left, and a diagnosis of ectopic gestation was made. An abdominal section was at once performed and the left tube removed. This was the seat of an unruptured gestation sac and not one drop of blood was found in the peritoneal cavity.

The patient's right appendages had been removed for a similar condition fourteen years previously, since which time she had given birth to three children. No history of previous inflammatory disease.

2.—The next case is one of retention of the fœtus in the abdomen for seventeen years.

The patient, a multipara, 55 years of age, came complaining of pain in the right inguinal region ever since a "false conception" seventeen years before coming under observation. At that time, she was seen by Dr. William Gardner. Abdominal operations were not so safe as now, and were avoided where at all possible, so that Dr. Gardner procured the death of the ovum by electricity. For the first ten years, little trouble was caused beyond slight pain, but seven years before I saw her the pain began to increase and has grown steadily worse. About the same time she began to have attacks of retching. Her pain was of dull aching character.

On making a local examination the cervix was found to be small and firm. The fundus was small, retroverted and fixed to the posterior and lateral walls of the pelvis by a mass in the right fornix. The mass was the size of a small orange, ovoid, not sensitive, and firmly plastered against the right lateral pelvic wall.

At operation the above mass was removed with difficulty and found to contain the skeleton of a five months foetus with some of the soft tissues mummified.

3.—The third case is an example of an extremely rare form of gestation, viz.:—Primary abdominal gestation.

The woman, a multipara aged 24 years, was brought to hospital complaining of pain in the lower abdomen, bleeding for five weeks and retention of urine. The pain was increasing in severity and extending down the thighs. She had vomited once or twice. Her last period was three months ago.

The local examination revealed a high cervix, which was soft and had a patulous os. This was connected

with a swelling, the size of an orange, in the lower abdomen. In the posterior fornix there was a cystic mass, which was likewise continuous with that in the abdomen.

At operation, the uterus was found in front and to the right side, while behind it was the above mentioned cystic swelling. This was very firmly attached to the posterior part of the uterus and sides of the tubes, so much so that it was considered advisable to remove the tubes, mass and upper two-thirds of the uterus.

The patient made a complete recovery but the convalescence was complicated by excessive vomiting. As one worm was thrown up, san-tonin was given, with the result that twenty-four lumbricoid worms were expelled per os.

PATHOLOGICAL REPORT. . .

The specimen consists of the uterus, appendages and a large mass, roughly the size of a fist. The tubes and ovaries were more or less attached to the outer side of the above mass. On section, the mass is seen to consist of a gestation sac containing a foetus 5 c.m. long from tip to tip. It is attached by the cord to the placenta. The foetal membranes are intact. The wall of the mass is roughly $2\frac{1}{2}$ c.m. thick and is composed largely of blood clot. Both ovaries appear to be fairly normal. The tubes only show a moderate degree of thickening and their lumen is patent. The uterus is soft and oedematous and the endometrium of a deep pink hue. The uterine cavity admits the tip of the little finger.

Microscopically the uterine tissue is seen to be normal as is also the lining membrane. No decidual cells can be found. Examination of sections of the tubes proves the absence of any sign of decidual tissue. The ovaries are seen to be healthy.

IS THE MEDICAL PROFESSION OF NEW BRUNSWICK MAKING GOOD ON ITS OWN BEHALF?

By J. P. McINERNEY, A. M., M. D., C. M., M. P. P.,
St. John, N. B.

(Read at meeting of the New Brunswick Medical Society, July 21, 1908.)

FROM time immemorial the medical profession has busied itself with the betterment and uplifting of the human race. The noble work done by the profession in the vast field of preventive medicine, and in the domain of hygiene, has effected much to check the inroads of the fell destroyer. When we consider all that has been done by the medical profession for mankind, and then on the other hand, consider the many grievances we justly have against our legislators, it would seem a very small *quid pro quo* for the magnificent position of altruism we have ever maintained.

The question that naturally and first arises is:—are the legislators fully to blame for this apparent neglect, or are we ourselves wanting in putting forth our best efforts to advance the interests of the medical profession in this province.

We have been seeking for years under the judicious guidance of Dr. Roddick, of McGill University, to transform our *legal status*, which is still but provincial, into a condition with possibilities and powers as wide not only as the Dominion, but as wide as the British Empire itself. It is unnecessary to discuss the many advantages that would come to us as a result of Dominion Registration, and affiliation with the profession in Great Britain. In the first place it would empower a medical man, after having passed the necessary examination before a central examining board, that might be appointed, to practice

his profession in any province or locality over which flies the British Ensign. It would have the effect of widening our horizon and our *watch-word* for the profession would be *Imperial* and not *Provincial*. By some it may be said that the prevention of successfully carrying Dominion Registration into effect is brought about by the profession itself. That the professional jealousy in certain provinces has caused the law-givers in these provinces to meet the views of their constituents, and to save their skins from a political standpoint, they have voted in parliament to please their narrow-minded friends and against the best interests of the profession. Herein lies a grievance on this point not only against our legislators, but against certain members of the profession, who have failed to make good in advancing the interests of medical science. We believe it to be the bounden duty of all—both legislators and members of the profession—to rise superior to any petty jealousy and for the general welfare of the profession, their trend of action should be *Imperial* in character. If this province of New Brunswick and this Canada of ours is to be a land of liberty and freedom, it seems but meet and just, that a man after receiving the *Imprimatur* of a recognized University, should be allowed to pitch his tent on any vantage ground he desires on that broad stretch of Canadian territory extending from the Atlantic to the Pacific.

Herein, Mr. President and Gentlemen, lies the necessity of thorough organization in our professional ranks, not only in New Brunswick, but throughout the length and breadth of Canada. If we as a profession would succeed in elevating the standard of professional ethics, the green-eyed monster of jealousy must be *laid* forever. We must stand together in serried ranks from one end of Canada to the other, if we would stem the tide that is daily rising higher and higher to curtail our privileges and interfere with our just and honest rights.

I still believe it to be the duty of the New Brunswick Medical Society to keep up the struggle along the lines of Dominion Registration. This society should pass resolutions asking the Council of Physicians and Surgeons of New Brunswick, to continue its just and laudable endeavours in representing to the other provinces of this federation, how advisable it would be to have Dominion Registration established. Some may say these efforts would be in vain at the present time, but we must ever remember that "eternal vigilance is the price of liberty," and success in the field means the application of the strong arm and the active brain, for as Emerson says: "The world is no longer clay but rather iron in the hands of its workers, and men have got to hammer out a place for themselves by steady and rugged blows."

Again, Mr. President and Gentlemen, another very important matter that should continue to engage the very serious consideration of the profession in the province, is the necessity that exists for the establishment of a sanatorium for the treatment of tuberculosis. It is unnecessary for any one at this stage of medical science to point out the necessity of

such a building wherein cases of a tubercular character may be treated.

Not only would those sent to the sanatorium receive suitable treatment, but the very removal of the affected person would be taking away a source of contagion from probably the midst of a large family, and after being sent home cured, the patient would not only become an object lesson to those around him, but would be able to show others outside affected with the dread disease, the great necessity for practising the rules of sanitation and strict disinfection. Most of you present here to-day have heard or read the splendid report and sympathetic appeal of the committee appointed by the Society some years ago. Many of us heard this appeal read to the members of the late local government—supplemented by speeches from many other gentlemen on that occasion. The delegation that approached the government was a large and influential one. Both Church and State were with us on that occasion. We were informed that the object of our solicitude would receive the government's most serious consideration, but not one dollar was granted to aid and abet the medical profession of this province in their attempt to stamp out the ravages of the great white plague. The great good that might be effected along the lines of preventive medicine in reference to tuberculosis is clear to all. In times of *Peace*, let us draw a moral from times of *War*. In the wars between civilized countries for centuries past, it is estimated that twenty per cent. of the death rate is due to wounds received on the battle-field, and the remaining eighty per cent. is due to diseases—preventible in character. In the Crimean War the serried phalanxes opposed to each other, lost in

six months, 50,000 men from disease, and 2,000 from bullets. In the late Boer war, and in the American Civil War, the death rate from disease is appalling to the reader of history, for we are told there that for every one who bit the dust as a result of the bullet or sword, three crossed the great divide due to disease. In the war between China and Japan in 1894, forty-five per cent. of the Japanese soldiers were placed hors-de-combat by disease. In the last Japanese war, the wily, sagacious and efficient Jap profitted by that experience, and we find as a result that the usual order of things is reversed. By carrying the laws of sanitation to the very climax of success, we find as a result that while four fell by the bullet or the sword, only one died as a result of disease. Might we not truthfully say, gentlemen, that if the governments of this country gave to the medical profession a free hand, and all implied therein, along the lines of preventive medicine and hygiene, that in a short time the death rate in tuberculosis would be reduced from FOUR to ONE.

I desire, Mr. President, to impress upon this Society to-day assembled, the great necessity for continuing its efforts in bringing before the government of the day this very important matter. Let this Society persevere, let it give power to the committee appointed a few years ago, to continue its efforts, or appoint a new committee to approach the government at the next session of the legislature. From information that I possess I feel our committee will be successful in receiving from the present government not only a sympathetic hearing, but also a goodly measure of material support for the establishment of a sanatorium for the treatment of tuberculosis in New Brunswick.

It would be interesting, I think, Mr. President, at this meeting, to enquire if the profession in this province is putting forth measures sufficiently strenuous to have compulsory vaccination established. Under the *Consolidated Statutes*, vaccination was compulsory, but the *School Act* repealed that provision. When we come to consider the great boon that vaccination has proved itself to be to mankind; when we consider and understand that it is the only effective measure to stamp out the awful disease—*small-pox*—it is surprising to find on the part of the laity, such great objection to having this preventive measure carried into effect. In many school districts there has been considerable friction between the trustees and the parents, and there has been a special difficulty lately in the districts of Moncton and Shediac, where they had an epidemic of small-pox. In many cases the children had not been vaccinated at all, and the trustees had no power under the Act, to close the schools, but, recognizing the difficulty, they took the only course open to them and closed the schools on their own authority. In this course the trustees were sustained by the present Attorney-General, the Hon. Mr. Hazen. To overcome this difficulty in the future an amendment to the Act was introduced and carried at the last session of the legislature, placing upon the trustees the responsibility of admitting unvaccinated children to the schools, and giving them (the trustees) discretionary powers as to the enforcement of the Act or otherwise. This, you will notice, Gentlemen, is certainly a step in the right direction, and should the trustees in all the school districts be men thoroughly alive to what their duties demand, and have the best interests of the people at heart

by using their discretionary powers to see that no unvaccinated child shall attend school, then we might claim we possessed the great boon of compulsory vaccination in its full sense. But, supposing the trustees, not being imbued with the good and great and far-reaching effects of vaccination, should use their discretionary powers in such a way as to admit unvaccinated children to attend school, then, I feel, gentlemen, we are up against a serious proposition.

Mr. President, I submit it is the duty of this Society to see that the Act is made more stringent—that all discretionary powers be taken away from the trustees, and the bald amendment be added permitting no unvaccinated child to attend school. This is a question, gentlemen, for your consideration, and as far as I am concerned, I feel this Society should place itself on record on this question before the government and the people of the province.

I would now ask your attention Mr. President and Gentlemen, for a moment, to the consideration of a question, that I believe to be, the veriest “winter of our discontent.” We entertain a very sincere and heartfelt grievance against both federal and provincial legislators for their failure to have enacted adequate legislation to prevent the practice of quackery in our midst. It would seem that any one with the *sio-disant* title of Doctor attached to his name, can come and settle down in our midst, prepared to battle with all “the ills that flesh is heir to.” He can do this in certain cases, and there would appear to be no legal remedy to prevent it. In our own province and in the province of Ontario, through our Medical Councils, we have at all times done what we could to stem the tide of quackery, and prevent imposi-

tions being foisted on the public from time to time, but when the battle came to a legal climax, we ever found, up to the present at least, that the law was not sufficiently explicit to exclude from the practice of medicine, for instance those who are supposed to practice osteopathy. The learned judge ever decides with those contesting against the just rights of the regular profession, that, in the practice of osteopathy, for instance, no *drugs* have been prescribed, and the laying on of hands, the manipulations executed on the over-confiding patient, do not constitute the practice of medicine or physic, and thus the osteopath is without the pale, and the regular profession is helpless to stop him. Let us, Gentlemen, view this question a little further, and ask ourselves, “what really constitutes the practice of medicine or surgery?” Does the practice of medicine mean only the dealing out of squills and paregoric, of mercury and iodide of potash, etc., etc., or does it mean something more? Does it not mean knowledge more profound in character? Does it not mean almost invariably a diagnosis of the cases before the administration of drugs? For, after all, treatment is almost always easy if we fully recognize the nature of the case we are called upon to treat. Achilles was easily slain, when his vulnerable point was recognized.

In the case lately brought before the police court in St. John, against one whom we believe to be practicing medicine and surgery illegally, by the Medical Council of New Brunswick, acting for the medical men of the province, the judge decided as you all know, on that occasion, that evidence was not shown, that the defendant in the case was practicing medicine. If closely examined, Mr. President and Gentle-

men, it might be interesting to note whether the defendant in the treatment of the surgical cases brought before the Court, did not invade in the course of that treatment the realms of surgery; or in the handling of the Nervous Case presented, the defendant did not make use of means usually recognized as belonging to the regular profession. If he did, then, the defendant invaded a province supposed to be legally sacred to the regular profession, and not being a registered practitioner, the defendant practiced medicine and surgery illegally.

A word to the public at this juncture might not be amiss. Some are inclined to view the case above referred to against one whom the profession look upon as an irregular practitioner in the light of *persecution* prompted by professional jealousy. This is not so. The Medical Council in bringing the case to Court were simply carrying out the views and expressed wishes of the medical men of the province, who feel as a profession that they have their legal standing, and insist upon their legal status being recognized. As a recognized profession, supposed to possess legal security, the medical men of this province, and I think they are right in so doing, dispute the right of anyone to invade their territory sacred to themselves, unless that one be a duly qualified registered practitioner. We

all admit that *massage* and other *movements* and *manipulations* as specified by some of our best recognized authorities, have a place in the practice of medicine and surgery; and, in some cases, a very important one; but, we arrogate to ourselves as regular practitioners, the right to say, when and in what cases this special form of treatment shall be resorted to. As followers of Æsculapius, with the true traditions of our profession at heart, we deny the right to any man without having first received the *Imprimatur* of a recognized medical school and conformed to the laws demanded by Provincial Registration, to come into our midst—style himself Doctor—diagnose diseases, and by processes of *manipulation*, attempt to make the community believe that he has a *panacea* for all the ills of humanity.

After all, Mr. President and Gentlemen, the great *desideratum* would be to *point the moral*, "Every medical man—the sentry at the gate, as well as the watch-dog on the tower—should see to it that the best interests of the profession are safe-guarded; that laws inimical to the advancement of our professional welfare be opposed, and attempts to effect legislation conducive to our uplifting and betterment as a profession be ever our watchword. In a word, let our motto be: organization and agitation along legitimate lines."



PUERPERAL FEVER.

By J. W. REID, M. D.,
Windsor, N. S.

(Read before Colchester-Hants Medical Society, November 17th, 1908.)

I AM sure an apology is due to this society for imposing upon you the consideration of so familiar a subject as "Puerperal Fever." To a great number of physicians it is no doubt a subject that you need no coaching or information upon. Nearly all of us have had something to do with the condition, but I will venture to say none of us are proud of our experience with it; in fact a man must be a good piece away from home to mention it. And it is about as much as his reputation is worth to acknowledge that it even exists in his practice. It is not only hardly safe to write about it, but it is hardly safe to let your fellow practitioners know of its existence, much less your patient. You must have noticed we hear very little of this in our medical societies or our medical journals. And the cause of this is the very great jump that was made from the older day ideas when it was chiefly regarded as were other epidemics, as due to the visitations of God, to the now prevailing idea that it is more than likely due to the visitations of the physician. As the former idea was a false one so is the latter. I would like to be able to show as fully as I believe it to be a fact, that it is almost absolutely impossible for a physician to impart to the patient this very much dreaded condition."

In order to show this it will be necessary for a few moments to go into the past history of this disease. It was formerly the most fatal complication of child-birth; it has been known from the time of Hippocrates, who described it as due to absence of the lochia; and all down through the ages it has been known and

ascribed to various causes, chiefly to the absence, suppression or deficiency of the lochia. But it did not become a very formidable disease so far as records go, until the establishment of hospitals, and in the olden times hospitals had their lying-in wards which were not isolated from other parts of the institutions. It was regarded as a disease that prevailed epidemically, generally in the damp cold months of the fall and winter, thought probably due to certain morbid atmospheric conditions prevailing during these months. We have recorded dates of many of the epidemics, and the prevailing characteristic of the disease during each epidemic. It by-and-bye began to be noticed that there was a remarkable coincidence between epidemics of puerperal fever, and of erysipelas and typhus fever, and it was noted that an epidemic of erysipelas was almost sure to be followed by an epidemic of puerperal, and the same was true of typhus fever. It was supposed that the same atmospheric conditions producing the one produced the other, that the same general symptoms prevailed, and that each was capable of reproducing the other. Gradually but slowly, it dawned upon obstetricians that puerperal fever in its epidemics depended upon the presence or exposure to these other diseased conditions, and as gradually and slowly it dawned upon them that it was contagious one to another and was carried by the obstetrician or nurse from one woman to another.

It seems rather remarkable too that it took so many years to demonstrate the infectious nature of the disease, when you take into considera-

tion its very great prevalence, the number of epidemics and the very many fatal results which followed the disease; not only that, but we have recorded so many object lessons which seem to point out so glaringly its very infectious nature; for example: Certain obstetricians had a large number of cases, while others had none. It is also recorded in a number of instances of surgeons dissecting, or making a post-mortem of puerperal cases and afterwards attending cases of obstetrics which contracted the disease and died. There are numerous cases of this kind recorded.

We have all heard of the Philadelphia physician, who had so many cases while his neighbor practitioners had none. In vain he shaved himself, changed his clothes, wore a wig, stayed away from practice for days, and in spite of all this the next patient he attended took sick and died. It was ascribed to a dispensation of Providence. Later when the infectious nature of the disease was known it was supposed to be due to a muco-purulent nasal catarrh from which he suffered.

It was a great advance in obstetric practice when puerperal infection was known to be contagious, and was an enormous stride towards the protection of women in child-birth. But as in many other things, it went to extremes in the other direction. For example if a dead rat was found in the cellar it was the cause of puerperal fever in the house. It was unsafe to make autopsies and attend confinements. A cesspool around the house would be sure to cause the disease, and so forth. Closely following the discovery of its contagious character, its cause was ascribed to germs and micro-organisms

of various kinds; and as the parturient canal was supposed to be free from germs of all kinds, it was necessary that these microbes or germs be brought in contact with the patient by external means. These methods were thought to be generally the doctor, midwife or nurse. The examining finger of the doctor might mean the death of the patient. It was then that the practice of obstetrics became a most formidable undertaking, and it still remains so, but not to the same degree as a few years ago, as the nature of these microbes have been studied and the genital tract explored, we find the vagina contains numerous germs, and that it is quite possible for the woman to infect herself from the germs contained within the canal.

We are all very well aware that infection will sometimes occur in spite of the most rigorous antisepsis from delivery taking place in an infected atmosphere, such as close proximity of a cesspool, a dung hill or privy. It is also known that previous disease of the genital tract is a cause of the disease, such as gonorrhœa, vaginitis, endometritis and so forth. It is also now believed, that conditions of the blood may give rise to fever either by the presence of bacteria in the blood which attack the uterine tissues, or by changes in the blood which usually exist as the result of pregnancy, the blood is more watery, less red corpuscles, more white, and in a condition pre-disposing to inflammatory disease. The infected atmosphere due to certain existing or recently existing infectious diseases in the house or ward where the delivery is taking place, but however introduced, the infection is a poison produced by certain microbes; and while as obstetri-

cians we cannot guard against all the sources of these organisms, we are probably well enough aware of the chief sources, and should protect our patients from them. Such sources are: allowing our patients to come in contact with persons suffering from the same disease, suppurating or decaying tissues, putrefying substances within or without the body, and certain other diseases which seem capable of producing the infection, such as erysipelas, scarlet fever, etc.

How does the poison enter? While in some cases it may be, and probably is due to pathological conditions within the blood in the majority of cases it is introduced through wounds of the genital tract, the direct result of labor.

The poison may be already present in the vagina awaiting favorable ground to work upon, or it may be present in the air from the filthy or diseased conditions enumerated above, or it may be carried by the hands or instruments of those in attendance if they have recently been in direct contact with conditions that produce it. With very ordinary care, however, I am sure the obstetrician need not be guilty of having conveyed the germs. All you have to bear in mind are these facts; are you attending other cases of puerperal infection, are you coming in contact with erysipelas or scarlet fever, have you any suppurative conditions about yourself which you might convey to your patient. From a personal standpoint, that is the limit of your power to infect. You should of course go further and satisfy yourself that the environment is in a respectably sanitary condition. Is there any septic disease in the same house or room with your patient. Remem-

bering these conditions then, with the very ordinary care that any person at all familiar with antiseptics would undoubtedly take, it seems to me the possibility of infection by the physician is almost nil.

Now coming down to my own experience, I have a number of times had to contend with febrile conditions during the puerperium. I would be very sorry if I thought I had had any part in their causation. So would we all. We must never forget that during the puerperal period as well as at other times, every person is liable to febrile conditions, and it would not be surprising if we occasionally had fever from shock, from nervousness, or from conditions of the intestinal tract, or from traumatism, in which there was no sepsis. But I have had deaths during this period from probable puerperal sepsis. I have seen at least four fatal cases, one in my own practice, one which was conducted by a midwife, and the others in consultation with physicians.

In the first fatal case the patient was an extremely delicate woman; it was her second confinement, and I understood her labour passed off very nicely, not a difficult labor and normal in every respect, but her husband was ill in the same house, the result of a severe accidental burn. The resultant ulcers were extensive and doing badly, he contracted tetanus and died two or three days after his wife's confinement. It is, I think, exceedingly doubtful in such an environment as that if the doctor's hands were necessary to carry infection to the patient.

Another fatal case was in the same house a year afterwards, the husband and wife having both died, the property was sold to a brother of the

deceased man who happened to be married to a sister of the dead woman. The house was thoroughly cleaned and it was thought to be in a perfectly safe condition. About a year after the death of her sister this woman was confined in the same house and the same room. I attended this woman myself. The labor was easy, about the only complication was three-quarters of an hour after labour she had a rather severe hæmorrhage which necessitated my going into the uterus with my hand and removing clots. Although the case looked somewhat urgent and one is always in a hurry at the sight of blood, yet I took time to cleanse my hands in an antiseptic solution—carbolic water, before doing so. The uterus contracted well after the removal of the clots and the patient rallied well from the hæmorrhage and was in a normal state on the second day. She however died in a week from malignant septicæmia, showing practically the same symptoms as the sister a year earlier. Question: How did she contract it.

The third fatal case occurred in the practice of a midwife, or rather in that of an old lady who accommodates her neighbours at these times. I have no idea any digital examination of the vagina was made, but this house contained two or three cases of scrofulous or tubercular sores. These were sometimes inflamed and showing erysipelatous symptoms. I have no doubt before her confinement she was daily dressing these sores, and it is not therefore surprising that she should contract a condition due to microbic causes. I am convinced that in these cases the environment alone had to do with the

disease, neither doctor or nurse played any part in their causation.

The fourth fatal case was in a remote country district, and was in the care of a very reliable man. He was attending no other cases of fever in parturition, nor any other septic disease, yet she died on the eighth or tenth day with all the symptoms of malignant septicæmia. These cases all ran very similar course: high fever, very rapid pulse, considerable headache, much tympanitis, and a good deal of tenderness over uterus, but no severe pain; the lochia were not offensive, were rather scanty and had a peculiar acid or sour odour. These cases all died between the eighth and tenth day. In another case death took place in the fourth week, due apparently to peritonitis; this case was complicated with measles.

I am therefore inclined to be convinced from my very limited experience, that these fatal cases were due to a microbic or septic environment, and not to any contagion which has been carried to them at the time of labour, and I feel sure that in coming to this conclusion, I am supported by the clinical records of the past before it was regarded as a contagious or infectious disease and when it occurred chiefly in an epidemic form due to the cases in maternity wards and the necessarily highly charged septic air surrounding them.

So far we have been dealing only with the very severe and fatal cases. We have, however, more or less frequently come in contact with cases of fever in the puerperal period which, seems while it lasts to be a very formidable condition, yet gets well quickly and leaves nothing behind it except the memory of its existence. For example, our patient

has had a normal delivery, everything has passed off beautifully and we are all delighted with the result. Our warning to the patient when leaving is, don't be too smart. On the third or fourth day we get a history like this, the patient has had a pronounced chill through the night, has been somewhat restless, has some headache a little tenderness over uterus, but no pain, a temperature of 103° to 104° , and a pulse of 120 or over. You examine the breasts and find nothing; you examine the lochia and generally there is no abnormal odor, and it is sufficiently profuse; a moderately offensive odour may be present; you talk to the old granny or the mother of the patient about it in a rather serious tone and they say that is nothing, it is just a little milk fever or the weed or some such thing, it did not worry them. It worries you because you ask yourself, what is it? and how did she get it? there may be another chill on the next night, perhaps a third chill, and the fever and pulse keeps up. After three days you generally have the very great satisfaction of finding the condition is subsiding, you are happy, but your question is unanswered, except the answer the old woman has given you. We get our literature which informs us microbes have done it. You have had putrid endometritis, diphtheria or membranous endometritis or composite endometritis. All germ diseases. If that is the case how did you get rid of your germs? You did not get near your endometrium. You did not treat it as you generally treat a germ disease when you can get at the seat of the disease. If the germs were there they are there yet, and yet you get rid of the disease. You read on, it may be infected traumatic lesions. You disregard that at

once. There was no traumatism. It may have been one or two kinds of peritonitis, metritis, parametritis, sapræmia, sepsis, simple hypothermia, from constipation, a neurotic condition or reflex irritation, or it may be true fever. What have you got? In despair you throw your literature aside and visit your patient. As indicated above, your patient is better, and you have decided that it is not necessary this time to make a diagnosis.

The ideal condition in your obstetric practice is an afebrile one. If you are led to believe by obstetricians that fever should never exist, and if it does occur there is the veiled suspicion that perhaps everything has not been just so; for that reason it is very desirable to be able to diagnose your cases. However, I give it up, if any of you can help me out I will be very much obliged.

Coming to treatment, we find the same irreconcilable or irrational condition. We believe we have a germ disease, yet we make little effort to get rid of them. When the germ theory was first demonstrated heroic measures were thus resorted to as would be done in septic conditions elsewhere. Always curette the uterus. This is rarely done now, only when there is positive evidence that portions of the placenta remain, it is not necessary to do so if only the membranes are left. Frequent irrigations were then resorted to, now it is thought better to leave it alone and only in a few cases where there is much foul lochia, and then possibly only once. Vaginal irrigation is still allowed. To make the blood better able to resist the poison the antitoxines were tried; that has been abandoned as of little importance, and we are reduced in our treatment, to rest, support, antipyretics and ergot.

To summarize: Our patients are attacked upon the third or fourth day with a malignant or non-malignant condition. So far as known both are germ diseases, and the same microbes which cause the one may cause the other. The onset is the same, as severe

in the one as the other. At the beginning the local symptoms and lesions are the same.

Is there any way we can tell what is the probable cause and nature of the attack or how virulent it may be, except to watch and wait?

CORRESPONDENCE.

ANTI-TOXIN AND ASTHMATICS.

EDITOR MARITIME MEDICAL NEWS:

SIR,—I enclose an excerpt from an English paper which shews the danger of antitoxin to asthmatics, as experienced by myself some eight years ago. I had a slight attack of Diphtheria for which the late Dr. Walsh administered one thousand units. Immediately after I felt a tightening about the sternum and a difficulty of breathing, which quickly developed into the severest attack of dyspnoea I ever experienced; and which I believe would have ended fatally, but for the immediate use of Nitrite of Amyl, Nitrate of Potash and Stramonium fumes and hypodermics of Strychnine and ether. Nothing would induce me to submit to an injection of antitoxin again, and I would urge the utmost caution in its use with asthmatics.

I have seen no reference to this case in any medical paper, but it bears the impress of truth upon its face. Its close resemblance to my own experience is my reason for asking you to give it to your readers.

Yours truly,

M. CHISHOLM.

The clipping to which Dr Chisholm refers follows:

ANTI-TOXIN INJECTION.

REMARKABLE CASE.

A case of considerable interest to members of the medical profession

and also to the public was inquired into yesterday afternoon at Kidlington, near Oxford, by Mr. Gordon Walsh, the coroner for the central division of the country.

Margaret Olive Mary Turney, aged eighteen years, daughter of a widow, had a sister who was suffering from diphtheria, and Dr. T. Brumyate, of Woodstock, who was in attendance, advised the injection of an anti-toxin in order to avoid the risk of her catching the disease, from which she had previously suffered. Having injected the anti-toxin, Miss Turney complained of smarting pains, and added that she was suffocating. She became worse, and in a few minutes fell from the chair and expired. She had for several years suffered from asthma, and Dr. Brumyate thought death was due to asphyxia from an acute attack of asthma.

Dr. Collier, of Oxford, who a few years ago was president of the British Medical Association, deposed to making a post-mortem examination. He found the lungs and cavities of the heart in such a condition as could only be brought about by a sudden and extreme spasm, which might be accounted for by an acute attack of asthma. In his opinion the injection of anti-toxin started such an attack. He did not think that anybody could possibly have anticipated such a result. Antitoxin was being daily us-

ed in every part of the country, and in the last ten years it had been injected into hundreds of thousands of persons. So far as he knew no similar case had ever been recorded. In view of the great importance of that inquiry, he invited Mr. George Dreyer, the Professor of Pathology in the University of Oxford, a gentleman of experience in the subject, to be present at the examination, and he might say that Professor Dreyer was

in entire agreement with the conclusion he had arrived at.

The jury returned a verdict to the effect that death was due to an acute attack of asthma, started by an injection of diphtheria anti-toxin, which had been administered with proper care.

The foreman added that in the opinion of the jury everything that medical skill and care could do was done by Dr Brumyate, and in this the coroner acquiesced.

FAREWELL TO DR. G. J. McNALLY.

ON the evening of December 28th last, a number of physicians of York and Sunbury Counties assembled at the Queen Hotel, Fredericton, to do honour to Dr. G. J. McNally, who has determined to take up practice in the Annapolis Valley, Nova Scotia.

The distance travelled by a number of those present clearly evidenced the popularity of Doctor George (as he is known to the profession here) and after partaking of the menu provided and presenting him with a memento in the shape of a surgical bag, a series of speeches were made, in which all present participated, and in every instance the speaker testified to the sterling attributes of Doctor McNally, as a man and physician. None acquainted with his ability as a surgeon failed to refer to his work here during the nine years of his residence, and the writer can do no better than quote the remarks of the chairman, when he said that "Doctor George McNally possessed pre-eminently the qualifications of the ideal surgeon, namely, caution, thoroughness and resourcefulness."

In his reply, Dr. McNally was visibly affected by the demonstration of good fellowship manifested towards him. Being a good speaker and ac-

customed to emergencies, he forthwith launched out into a comprehensive address, suggesting, among other things, certain desirable changes which should be sought in medical legislation, and terminating his remarks in an earnest appeal to those present to utilise this opportunity to consider the organization of a County Medical Society. This suggestion met with hearty approval of all present and as a consequence the achievement of the same is being rapidly accomplished.

Dr. McNally's record here evidences the man and citizen. For two terms he occupied the chief executive chair of our city, and during this time Mayor McNally persistently laboured (often to his personal and professional detriment) for the installation of a modern filtration and sewerage system, being convinced that our large number of perennial typhoids had their origin and perpetuation in the lack of sanitary essentials.

The successful accomplishment of this much desired scheme and the consequent complete extinction of typhoid from Fredericton clearly indicates the humanitarian as well as the physician, for the operation of these sanitary agencies have undoubtedly been the means of averting

much sickness and distress, and of saving valuable lives.

During the term of his practice in Fredericton, Dr. McNally performed many of the most technical operations in major surgery with unusual success.

His professional attainments (plus the blessing of good health) assured him success, consisting as they do of a degree in Medicine from McGill supplemented by several years study abroad in which time he earned the M.R.C.S., and L.R.C.P., London. He also possesses the rare distinction

of having been assistant to that eminent Surgeon, Sir Victor Horsly.

We predict for Dr. McNally the success his qualifications and ability warrant, and congratulate the profession of Nova Scotia in general and the people of the Annapolis Valley in particular in the acquisition of such a desirable citizen, physician and gentleman.

EDITOR'S NOTE:—Dr. McNally, we are informed, intends locating in Berwick, where the NEWS wishes him every success.

PERSONALS.

DR. D. A. Taylor, who has been practising at Newcastle since about the first of September, has closed up his office and gone for a vacation to his home in Havelock. He intends to settle at Lethbridge, Alberta. While on the Miramichi, Dr. Taylor made many friends.

A rising young Nova Scotian who is making a name for himself in the

American West, is Dr. James Chisholm, of Everett, Washington, says the New Glasgow *Enterprise*. He is a son of the late William Chisholm of New Glasgow.

Dr. J. A. Sponagle, of Middleton, N. S., leaves at the end of this month for London, England, where he is to take a post-graduate course.

NOTE.

The article on "Hospital Organization" in our December number has given rise to a good deal of discussion. It is due to an unfortunate combination of circumstances, and perhaps also partly to the pressure of work at this busy season, that

the subject is not dealt with editorially in the present number of the NEWS. We hope to have an editorial in our next issue and in the meantime we shall be very glad to receive correspondence from any of our readers who may be interested in this important subject.

OBITUARY.

GEORGE WILSON BELL, M. D.

AFTER a long and distressing illness of about fourteen months duration, and borne uncomplainingly, George Wilson Bell, M. D., passed away peacefully at his home in Kingston, N. S., July 3rd, 1908.

The subject of this notice was born in Shelburne, N. S., December 4th, 1842, and was in his 66th year at the time of his decease.

He was the second son of Wm. T. Bell, one of the leading shipbuilders of his day, besides being Prothonotary and coroner.

His mother was Jane Wilson of Barrington, before her marriage.

He was one of six children—of these three—sisters—survive.

Dr. Bell commenced his medical studies with the late Dr. Snyder, of Shelburne—afterwards at the College of Physicians and Surgeons, New York, graduating from that institution in 1869.

After a trip to the Mediterranean in one of his father's vessels, he settled in 1870 in Farmingdale, Long Island, New York.

In 1871 he married Maria, only daughter of the late Francis and Elizabeth Congdon Woodbury, of Spa Springs, Annapolis Co., N. S., the marriage taking place in Amesbury, Mass., where Mrs. Woodbury resided with her sons, Frank and Hibbert, now the well-known dentists of Halifax.

In 1878 Dr. Bell sold out and came to Nova Scotia, first practicing in Mill Village, Queen's Co., and for the past twenty-one years in Kingston.

It has been the writer's privilege to have had Dr. Bell, as a neighbour professionally, during this latter period.

Frequent association in the sick room and socially, made us warm friends, and the survivor takes this opportunity to testify to those desirable and admirable qualities, which endeared Dr. Bell to his patients, and made professional association a pleasure.

Our late friend was by nature a gentleman, and required no "code of ethics" to guide him in his relations with his patients and fellow-practitioners.

No matter how distressing the circumstances or how grave the case, Dr. Bell by his cheerful demeanour and pleasant ways brought cheer and hope to all.

He had a faculty of "getting around" children, and winning their confidence, which was most remarkable, and the envy and admiration of his confrères.

In addition to his professional duties, he was deeply interested in agricultural pursuits, and one of the finest orchards in Kingston, was on his property.

His kindly disposition, his cheerful and pleasant manner, and above all the honourable and useful life he led, has left a blank in his old home, and the surrounding country, which will long be felt, and that, very keenly, especially among those who depended on him in times of sickness and adversity.

All that is mortal of this greatly beloved and widely esteemed man and physician now rests in the beautiful Pine Grove Cemetery, Middleton, whither he was borne by his brother Odd-Fellows, July 5th, 1908, and followed by a large concourse of relations and friends.

HOSPITAL ORGANIZATION.

DR. MADER REPLIES TO DR. MCKAY.

To the Editor of the Maritime Medical News.

SIR,—In your December issue, you published a lengthy paper on "Hospital Organization," by Dr. Norman E. Mackay, in which he desires to show that the organization of the Victoria General hospital is responsible for its failure to obtain full public favor.

I will not insult the intelligence of your readers by giving my views of the different methods of management most suitable for an institution the size of this hospital; but I desire to point out certain facts which are doubtless the cause of any ill repute the institution may have fallen into during the past twenty odd years, and particularly during the past eight years.

On this continent the vast majority of hospitals are conducted on the same lines as our government has been managing ours (except, of course, perhaps no other institution is so exposed to political intrigue), and where can you find institutions of such clean records and such high reputations, extending over scores of years, as for example, the Montreal General hospital, the Massachusetts General hospital, and many others of like high standing, and with conditions very similar to our own? No one on the ground who understands the conditions will believe that the want of harmony here is due to the character of organization. This want of harmony is undoubtedly due to the lack of dignity and medical etiquette on the part of the senior of the surgical staff.

Many of your readers are aware, that since the resignation of Dr. J. F. Black and the death of Dr. Edward Farrell, some eight years ago, Dr. Mackay came by order of rotation, not by election, to the

position of senior surgeon to the hospital. His actions previous to this date I need not refer to, as they are well known to the profession, as a constant quarrel since his appointment to the institution in 1885. Since he became senior, however, he has undertaken to wield the hatchet without mercy, and figuratively speaking, has been scalping every man who dares to wield a scalpel in the Victoria General hospital, and has been working incessantly to get the hospital and its surgical staff in such ill-repute that the men in the country will ask for reorganization, when he hopes to get a new tenure of office in the hospital with the title, surgeon-in-chief, and a good salary.

His greatest effort in this direction has been the preparation of this address for the Colchester and Hants Medical Society, which is so padded up with long quotations which read very well, that, on the whole, it must be admitted to be a brilliant mingling of a little truth with a great deal of falsehood. In this paper he refers to a conference between the Government and the Medical Board which he did not attend. The writer did attend that meeting. It was a large meeting, and the central matter discussed was the want of harmony of the members of the Medical Board. There was not a dissenting voice to the proposition to have Dr. Mackay entirely removed from the staff as the only solution to the hospital difficulty. Every surgeon on the staff gave instances from his own experience by which he deemed such action on the part of the Government the only proper one.

Many of the ill reports about the hospital and its surgical staff, which have been circulated during the past seven or eight years, have been traced directly to the

senior surgeon; and in retaliation certain members of that staff have shown up in the public press alleged blunders of the senior surgeon (which he has not publicly denied), and are of such magnitude that it is hard to understand how he can manage to hold on at all, much less to go to the surrounding counties and read addresses reflecting on the institution which he has been connected with long enough to have given it some reputation, if he is fit for the position he has now held for over twenty years.

His action in the Lively case, where he fought so strenuously to convict two of his colleagues, Drs. Chisholm and Murphy, of neglect of the patient Lively, is still fresh in the public mind of this province.

The Knowles case is well known in medical circles in Halifax, where the senior surgeon scored his junior colleague, Dr. Hogan, for his failure to diagnose, with the assistance of Dr. Kirkpatrick, an obscure abscess in the region of the mastoid. With his usual intrigue Dr. Mackay succeeded in getting this case under his care and was able on the operating table to demonstrate to the internes the poor diagnoses of his colleagues. Knowles died quite promptly after the operation, so the public did not hear about it through the medium of the Lay Press.

Again the A. case, which had to do with a private patient in the wards of the hospital, and died after an operation for appendicitis by Dr. Chisholm, the senior surgeon circulated a report that the child died with its belly full of pus.

Again, in the McKenzie case, which was one of entero-vaginal fistula, operated upon on June 30th, 1906, and died of Septicemia (a result which has followed 25% of such operations reported in medical literature), he spread the false report that the bowel was perforated during the operation, and that there never was a fistula at all; that the technique of the operation was all wrong, etc., etc., etc. He wrote letter after letter to medical men in

the county of Cape Breton (where the patient belonged), but his statements were so much discredited that he failed to find a doctor to lay a charge against the operator. The latter had previously called on the Commissioner of Public Works, and asked to have this case thoroughly investigated, so as to refute the damaging tales spread by the senior surgeon, but was told that there could be no investigation where there was no charge. Dr. Mackay finally succeeded in getting a young lawyer, a grateful patient of his (having had his appendix removed by the senior surgeon, and was no doubt willing to pay the fee), to publish a most sensational and damaging letter with exciting headlines in a Sydney opposition paper. This article referred to the Lively case passingly, but to the McKenzie operation in statements, every one of which was either entirely misleading or absolutely false. A thorough investigation followed by a commission composed of three medical men of the highest standing in this province. The charges were entirely disproved, and the operator completely exonerated.

During this investigation the young "appendixless" lawyer showed plainly that he did not know anything about the Lively case, and hospital affairs in general; that he had not even read reports in the public press, and proved to the satisfaction of the operator in the McKenzie case that he was only the spokesman of Norman E. Mackay, the senior surgeon of the hospital who was again defaming the name of that fair institution.

This must be said, however, for Dr. Mackay: He never investigated the McKenzie case, nor examined the specimen of bowel which is in the hands of the Government's medical inspector, Dr. Sinclair. He must have no practical knowledge of such a case, for he admits on cross-examination at the investigation, that he never saw a case of entero-vaginal fistula. Still, he continues to go around and prejudice medical men one after the other, and has

worked untiringly to prevent the operator's promotion on the Victoria General hospital staff by whispering poison into the ears of the members of the executive.

I beg to submit to your readers the opinion of an eminent abdominal surgeon of Johns Hopkins University, to whom one of the members of the commission submitted the McKenzie case from the history obtained at the investigation, namely:— "Concerning Mrs. R. McK., aged 21, admitted to the Victoria General hospital March 27, 1906. In reference to opening the abscess in Douglas pouch in December, 1904, the operation is the usual one performed by gynecologists and abdominal surgeons, and was carried out according to the method in vogue. If she subsequently lost flesh and remained septic it is not unusual, because when the abscess opens into the bowel, there is always the danger of fecal matter passing from the bowel into the abscess and keeping up the irritating process.

"I have followed carefully the description of the operation performed on June 30, 1906. An operation of this character is in the first place one of the most difficult abdominal procedures that can possibly be undertaken. Step after step of the operation was practically what we would adopt in a similar procedure here. After viewing the question from every standpoint I do not see how an up-to-date surgeon could have adopted a better method of procedure than was followed in this case, and when we see from the history 'the patient was fully informed of the condition, and she chose to run the risk of a more serious operation rather than suffer the loathsome malady and the danger which she twice experienced before coming to the hospital,' I cannot for a moment see why there should be the slightest criticism. Under ordinary circumstances a surgeon would be thoroughly justified in letting the patient go on the way she was, knowing how difficult and dangerous an operation of this character is. The surgeons are certainly to

be commended for giving the patient a chance for recovery where without operation she was almost certainly doomed to death."

The writer, who was the operator in the McKenzie case (which Dr. Mackay has referred to in his address in a slanderous manner, so as to convey to certain laymen, whose offices are in the Province Building, the impression that every member of the medical profession knows all about this case and has taken sides against the operator), has too much confidence in the medical profession in Nova Scotia, among whom he has always counted his best friends, to believe that they will pass judgment by hearing but one side of the case, and that from biased individuals. The peculiar position that the Government has kept the assistant surgeon in at the Victoria General hospital, has placed him between two Highland Scotch surgeons in an acute battle, and he should have expected to have received a blow from each of them, and he is therefore not looking for sympathy, but simple justice. The fact that his case was one of such a technical character has made it difficult for the average practitioner to understand, unless he gave the case a few hours' special study. He has not had occasion to ask his medical friends to come to his assistance, and has been busy looking after his own work, and therefore has not informed the profession of the merits of his case as much as perhaps he ought to have. He wishes to announce to his friends in the medical profession that the McKenzie event has not injured him in the slightest, and that his surgical practice has doubled during the last few years, and that in the Halifax Infirmary alone, he has handled as many cases as any surgeon operating there, save one, and with results that any man could be justly proud of.

Thanking you for your space, I am,

Yours respectfully,

A. I. MADER.

MISCELLANEOUS.

QUAINT CURES AND PRESCRIPTIONS.

Every time seems to have had its Lourdes and every age its quackeries. We find, for example, during the classic era in Greece, that at Epidaurus many wonderful cures were effected in the temple. A man with one eye has a vision, and departs seeing with both eyes. A boy is cured of stone by being licked by the temple dogs, while the lick of a snake heals another man's toe. Gout is cured by leeches, administered in the patient's drink by by his stepmother. Perhaps the quaintest of all prescriptions are those related by Sir Thomas Browne. This remarkable writer, whose conception of man as "a noble animal, splendid in ashes and pompous in the grave," is as flattering as it is sublime, dearly loved whatsoever was fantastic, superstitious, or bizarre, and seems to have taken endless trouble to collect the most weird and complicated treatments of his own and former times. Pierius, he tells us, gave as an antidote against the sting of a scorpion, that a man should sit upon an ass with his face to the tail, thus causing the pain to leave the man and pass into the beast. Sammonicus prescribes an "uncomfortable receipt" for a quarter ague: to lay the fourth book of the Iliad of Homer under the sufferer's head. It is but just to Sir Thomas Browne to say that he disclaims any personal belief in these ingenious suggestions. But in all his writings he dwells very lovingly, and in a spirit of grave philosophical inquiry, upon every manner of superstition and legendary humbug.—"*The Hospital*."

TUBERCULOSIS AMONG THE JEWS.

Maurice Fishberg of New York takes up the question of racial immunity of the Jews to tuberculosis. He considers that this immunity is not due to their habits of life and diet, as far as connected with the Jewish ceremonial, nor to the inheritance of pure Jewish blood, but to a kind of immunity rising from the fact that town dwellers become less liable to tuberculosis after years and generations of residence in towns, which he thinks has been the case with the Jews for centuries. Examination of statistics from various countries shows that the Jew all over the world is less susceptible than other nations to tuberculosis, even when their conditions of life are the same with those around them. The Jews of New York are most of them garment workers, and their ancestors have been garment workers and dwellers in towns for generations. The same sort of immunity is thus acquired as is acquired by nations to other infectious diseases.—*Medical Record*, December 26, 1908.



A SLIGHT MISTAKE,

Young Surgeon (in hospital, after having just removed a patient's leg) —'Does the operation meet your approval, doctor?'

Head Surgeon—'Very well done, except for a slight mistake.'

Young Surgeon—'Why, what's the matter?'

Head Surgeon—'You have amputated the wrong leg.'

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A reader of the *News* wishes to sell the *British Medical Journal* which comes to his address, and will forward same unopened direct from the publishers for one year from date at half price. Write to M. D. c/o The NEWS, if interested.

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than all, a peculiar, more or less characteristic, asthenic, form of lobular pneumonia. The skill of the physician and the vital resistance of the patient are often taxed to the utmost in a combined effort to induce final recovery. Anæmia, to some degree, is almost always brought about by the combined devitalizing power of the disease and its complications, and convalescence is likely to be tardy and tedious. An easily borne, readily assimilable hematinic does much to hasten recovery and Pepto-Mangan (Gude) is an especially eligible method of introducing the much needed ferric and manganic elements, without producing or increasing digestive difficulty. In no condition does this well tried hematic remedy evidence

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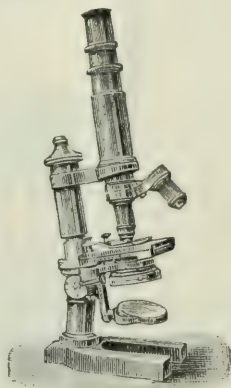
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this thought continually, they have sent us a desk clock suitably inscribed, saying: "May every revolution of its hands, as they tick off the hours of 1909, be fraught with success to you and the journal over whose destinies you so ably preside."

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LESSON IN ANATOMY.

(The Medical Times.)

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Advertising of Magi Water*

We are trying to acquaint the general public with the fact that Magi Water is above all things a wholesome and delicious beverage. That it has health giving as well as health conserving qualities is mentioned in our advertising, but its application to the alleviation of disease is left entirely to the judgment and endorsement of the Medical Profession.

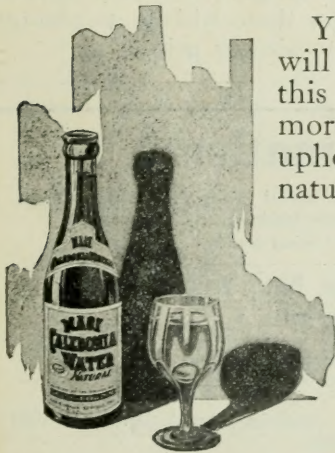
We know that

MAGI WATER

is a superior beverage when used at table, soda fount or with other drinks. This we are telling the public as strongly as we possibly can.

It has been proved by professional experience that Magi Water is of great value in the treatment of Rheumatism, Gout, Gravel, Calculi and many functional disorders. This we are not dwelling on to the public; but we wish to emphasize it in talking with you.

Your silent endorsement of this our attitude will be appreciated. A letter from you, stating this endorsement, will be held sacred and will more than repay us for our earnest attempt to uphold the dignity of a thoroughly valuable, natural mineral water.



We will be pleased to send you information regarding the therapeutic value of *Magi Water*, on request. Also copies of letters received from eminent practitioners.

CALEDONIA SPRINGS CO., Ltd.
Caledonia Springs, Ontario

HALIFAX MEDICAL COLLEGE,

HALIFAX, Nova Scotia.

FORTIETH SESSION, 1908-1909

The Fortieth Session opened on Tuesday, September 1st 1908 and continues for the eight months following.

The College building is admirably suited for the purpose of medical teaching, and is in close proximity to the Victoria General Hospital, the City Alms House and Dalhousie College.

The recent enlargement and improvements at the Victoria General Hospital have increased the clinical facilities, which are now unsurpassed. Every student has ample opportunities for practical work.

The course has been carefully graded, so that the student's time is not wasted.

For further information and annual announcement, apply to—

L. M. SILVER, M. D.,

Registrar Halifax Medical College,

65 Morris St., Halifax

Attached to the legs are the feet. Some varieties of feet are cold. Some people are born with cold feet, others acquire cold feet, and still others have cold feet thrust upon them.

The surface of the body is covered with cuticle, which either hangs in graceful loops or stitched tightly from bone to bone.

On the face it is known as the complexion, and is used extensively for commercial purposes by dermatologists, painters and decorators.

Between the cuticle and the bones are the muscles, which hold the bones together and prevent them from falling out and littering up the sidewalks as we walk along.

Packed neatly and yet compactly inside the body are the heart, the liver, and the lungs; also the gall, which in Americans is abnormally large.

These organs are used occasionally by the people who own them, but their real purpose is to furnish surgeons a living.

Papine in the new 16-ounce bottle—as offered from January 1, 1909, by Battle & Co., Chemists Corporation, St. Louis—shows a saving to the profession of \$2 per dozen, as against the price of 2 dozen of the 8-oz. size at \$8.50 per dozen and in which latter there will be no change, either as to size or price.

Treatment of Rheumatism*

Iron Treatment.—*** "Form which I have found most useful is the soft Blaud. Mass, with Arsenic, made by Duncan, Flockhart & Co."—J. T. Fotheringham, M.D., Toronto.

* Contribution to "Symposium on Rheumatism," read before Toronto Clinical Society.

Capsule No. 104.

Formula

Blaud Mass - - 5 gr.
Arsenical Solution, 2 minims
(= Arsenious Acid 1/50 gr.)

Capsule No. 105.

Formula

Blaud Mass - - 10 gr.
Arsenical Solution, 2 minims
(= Arsenious Acid 1/50 gr.)

"Chemical examination shows Iron is in the ferrous condition, and, therefore, that Capsules retain full efficacy."—*British Medical Journal*.

May be ordered through all Retail Druggists.

Samples sent physicians on application.

Full list of D. F. & Co. Capsules will be sent on request.

R. L. GIBSON,

88 Wellington St. West,

TORONTO

